

Extraordinary Learning in the Workplace

Innovation and Change in Professional Education

VOLUME 6

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The series promotes publications that deal with pedagogical issues that arise in the context of innovation and change of professional education. It publishes work from leading practitioners in the field, and cutting edge researchers. Each volume is dedicated to a specific theme in professional education, providing a convenient resource of publications dedicated to further development of professional education.

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Editor

Extraordinary Learning in the Workplace

 Springer

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Overview: The Reasons for Writing This Book

Janet P. Hafler

Just prior to a recent American Educational Research Association (AERA) annual meeting, leaders of AERA Division I (Education for the Professions) met at a pre-conference session to explore important educational topics and issues that cut across the professions. From the discussion, a proposal was put forward for the Springer series “Innovation and Change in Professional Education” and this volume – “Extraordinary Learning in the Workplace” – is one of the fruits of that effort.

We seek to inform the work of educators for the professions in curriculum design, instruction, and assessment by focusing on professional education in the practice settings of the workplace during the degree program stages of professional education. Our synthesis applies to a wide variety of professions and professionals who are trying to understand how to teach *and* how to promote learning in the workplace.

First among the fundamental issues that need to be discussed when looking at workplace education and when seeking to make workplace learning extraordinary is to clarify the meanings of “workplace” and of “extraordinary learning.” As to the first, we use the term “workplace” when referring to “the site where work is done by professionals while students are participating in providing service.” As to the second, we start with the word “extraordinary,” which Merriam-Webster (2009) defines as “going beyond what is usual, regular and customary,” and then move to “extraordinary learning,” which Hafferty and Hafler, in one of the chapters, put forth as follows:

[W]e take as our primary thesis that workplace learning truly is extraordinary when it is marked by structural congruence and a positive synergy among the intended and formal preparation of professionals (the formal curriculum); the tacit learning that takes place within the hidden curriculum; and the subsequent demands, both formal and tacit, that are embedded in subsequent workplace settings.

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To arrive there, authors explored the research and practice literature related to curriculum, instruction, and assessment of professionals' learning in the workplace and the implications for best practices. What was added – and what is therefore unique to our volume – is that we examined that literature in the context of four professions (education, nursing, medicine, and clergy) at the point in those professions where students are learning during the degree program stages of their education. And so our students are student-teachers learning how to teach; student-nurses learning nursing; student-doctors learning how to provide care; and student-clergy learning the elements and practice of their profession.

One assumption we hold is that for extraordinary learning to take place, throughout lifetimes of practice, professionals-as-educators must not only continue learning but must do so in the context of their practice, utilizing such methods as self-directed and practice-based learning. Though it is not the focus of this book, ongoing professional development is essential to our discussion because educators in the workplace need to be role models of effective practice if they are to make workplace learning extraordinary.

Further, our examination of the current literature and relevant developments in teaching and learning across the professions have led us to explore how students can best learn in the workplace. We draw on that research, add what we found across selected professions, and highlight the questions that can guide continued research on how learning can be made extraordinary. The purpose of the book is to lay out the issues associated with extraordinary learning in the workplace, so that professionals who are educators may be aware of them and of best practices and, so, be equipped to facilitate extraordinary learning in the workplace.

How do we teach in the workplace so that extraordinary learning can truly occur, even when it involves what Hawkins (1974) so beautifully refers to as “messaging about?” Should not our curriculum capture and reflect the process of learning – the “messaging about” – while still giving the other, perhaps more obvious, elements their due in planning for student learning: curriculum design, teaching methods, and assessment strategies, all of which are key structural components of education programs that promote learning.

That assumes that attention has been paid to the curricular issues, the teaching challenges, the relevant assessment methods, and the much-needed preparation of the faculty members involved in workplace learning. Many of our authors argue that there has been a lack of attention in the past to the programmatic context of learning in the workplace. Each contributor was tasked with carefully reviewing the literature and each has presented an excellent synthesis of the current status of the field as well as possible strategies to help foster extraordinary learning in the workplace.

How different is learning in the workplace from learning in the classroom?

Shulman and his colleagues, working in the context of the Carnegie Foundation study of education for the professions (Shulman, 2005), conceptualize professional development in terms of professional socialization and development of moral integrity, professional or clinical skills, and specialized knowledge through what they refer to as signature pedagogies. In education for the professions, learning in the practice settings of the workplace is the signature pedagogy and it is in

those environments that novices most profoundly experience entry into a community of practice as they develop professional skills through observation, coaching, mentoring, and supervision, and as the situations of practice provide meaning and motivation for abstract learning. Much of such learning occurs in the workplace. The authors in this book argue that attention to both the formal and the hidden curricula of the workplace, as well as preparing teachers to be effective educators in the context of a complex environment, forms the crucible where extraordinary learning can take place.

The Structure of the Book

After a careful analysis of the literature and numerous discussions with all the contributing authors, we decided to structure the book in four sections:

1. Curriculum, addressing both the Formal and the Hidden Curriculum;
2. Learning and Instruction;
3. Assessment, addressing emerging changes and practical strategies in the Assessment Paradigm for Professionals;
4. Implementation, addressing Faculty Development issues and a synthesis of what we have learned from our work.

To help understand terminology across the professions, Table 1 provides an overview of the different terms used to describe workplace learning in each of the four professions that were selected. To simplify the terminology throughout the book, we will use student, faculty, and workplace to refer to all of the professions. Although we are examining one aspect of student learning – in the workplace – we fully acknowledge that learning is developmental and progresses on a continuum (Table 1).

The Issues Addressed in Part I: Curriculum

From the perspective of workplace learning we begin with Harris highlighting three predominant traditions in curriculum studies: the systems approach, the reconceptualist approach, and the approach of deliberative curriculum inquiry (Harris, 1993).

She has skillfully synthesized the literature and showed how the three traditions are relevant to professional education. She suggests that the systems approach has provided professional education with, as she states, “its principal and most enduring edifice for curriculum development and evaluation.” She argues that Tyler’s (Tyler, 1949) paradigm for curriculum work, an exemplar of the systems approach that focuses on needs, purposes, objectives, organization of learning experiences, and assessment of students’ performances, provided the foundation for Blooms’ behavioral approach to assessment (Bloom, 1956), but only partially addresses the full range of issues in professional education in the workplace.

Table 1 The following chart helps to clarify some of the terminologies used in the four professions that we are highlighting in this volume

	Clergy	Medicine	Nursing	K-12 education
Title of learner	Student	Medical student	Student nurse	Student teacher
Length of total training/required credentials	MDiv – (post-baccalaureate) ~4 years to ordination	MD (post-baccalaureate) – licensure 3–5 years required training	ADN (associates) 2–4 years; BSN (baccalaureate)	BA + masters degree, 4–6 years
When clinical/practical training occurs	Clergy are placed throughout curriculum; internship experiences prior to ordination	Typically medical school year 3 (with some experiences in years 1 and 2)	Usually clinical begins year 1	Often as part of a 5th year teacher certification or as a field placement in a 4-year program
Site/type of workplace used for training	Broad variety of training environments (hospitals, prisons, community organizations, church environments, schools, etc.)	Hospitals, operating rooms, outpatient clinics, emergency rooms, private offices, etc.	Hospitals, nursing homes, outpatient clinics, schools	The classroom
Name of workplace learning experience	Clinical pastoral education or ministry training	Clerkship (medical student), residency (post graduate)	Clinical rotations; clinical preceptorship	Student teaching, internship, practicum, field placements
Title of teacher/mentor/supervisor in workplace	Ministry supervisor	Attending physician, preceptor, resident	Clinical supervisor	^a Cooperating teacher
Title of faculty or university-based teacher/mentor/advisor	Ministry supervisor usually with a faculty rank	Attending physician, Preceptor,	Nurse preceptor	^b University supervisor – faculty member

^aTeacher in the field placement/in the school where the student teacher is placed.

^bResponsible for grading the student teacher, must conduct observations in the cooperating teacher's classroom.

The systems approach to curriculum design tends to ignore the nature of the informal and hidden curricula present in every institution of professional education and work.

Harris then explores the reconceptualist approach to curriculum work, developed by a group of curriculum scholars, who sought to reconfigure how we think of the curriculum. The reconceptualist approach includes perspectives from a broad range of disciplines with a focus on the relationships between curricula and the cultural, social, political, and economic structures of the professional school and workplace setting; on the personal experiences of the curriculum; and on the hidden curriculum of role modeling and professional socialization (Harris, 1991a; Harris, 1993).

Lastly, Harris completes her discussion on curriculum as it relates to the hidden curriculum via a discussion of the deliberative curriculum inquiry approach to curriculum work that focuses on group processes of reflective inquiry in curriculum development. This tradition has its origins in work done by Schwab at the University of Chicago in the early 1970s (Schwab, 1978). She explores how processes in curriculum design in the deliberative inquiry approach, involving diverse stakeholders that include preceptors and mentors in workplace settings, have the potential to create curricula suitable for education in the setting of the workplace, while considering both the formal and the hidden curricula.

In [Chapter 2](#), Hafferty and Hafler, in their chapter, “The Hidden Curriculum, Structural Disconnects, and the Socialization of New Professionals,” provide a paradigm of the reconceptualist approach to curriculum work in their analysis of the hidden curriculum – which refers to cultural mores that are transmitted, but not openly acknowledged, through formal and informal educational endeavors – which they view through the lens of socialization theory (Freidson, 1970a, 1970b).

Hafferty and Hafler use Freidson’s basic arguments about training and work to explore several issues facing professional education in the twenty-first century. The basic argument is that the more highly siloed the training experience, and the more highly disconnected or pedagogically fractured that experience, the more likely the current work setting will trump prior socialization in determining how one performs in the workplace. The logic for those conclusions is as follows: the more disconnects there are in training, whether they be with respect to sites of training or the number of role models encountered, the more likely trainees will experience not one but several different and potentially countervailing experiences of socialization and professional inculcation. The disconnects, in turn, generate a hidden curriculum of professional preparation whereby trainees learn (and are tacitly taught) to adopt a chameleon-like approach to their professional preparation. The authors argue that to attain extraordinary learning in the workplace, the curriculum, formal and hidden, need to be considered in tandem and synergistic, in order to develop an extraordinary learning environment.

The Issues Addressed in Part II: Learning and Instruction

Part II focuses on conceptions and theories of learning and instruction and is intended to inform the work of educators with regard to components of professional

education that occur in the practice settings of the workplace. As Shulman (2005) has described, in education for the professions learning in the practice settings of the workplace is perhaps the signature pedagogy. As such, the authors explored the range of learning theories to assess their applicability in the workplace.

Harris integrates the many theories into clusters, and Henry and Malu present “effective teaching practices for the workplace.” Schön’s (1983, 1987, 1991, 1995) influential epistemology of professional practice, encapsulated in the term “reflective practice,” is imbedded in all of our chapters, from learning to teaching to assessing students. Harris writes that his “work is grounded in important philosophical traditions,” most notably Dewey’s conceptions of the role in learning of reflection on experience (Dewey, 1938). She comments that [Schön’s work] “is based on empirical analyses of case studies, across the professions, of professional practice and education for professional practice. Moreover, it is supported by studies in cognitive psychology and the development of expertise.”

In exploring what makes learning extraordinary in the workplace, Harris comments that Schön acknowledges the role of specialized knowledge in the competent and wise action that characterizes effective professional practice. But equally important for effective professional practice is the demonstration of “practical knowledge” or “know-how,” which Schön refers to as “knowing-in-action,” and of reflective competencies, which he refers to as “reflection-in-action” and “reflection-about-action.”

Rounding out Part II, Henry and Mahu explore how coaching, mentoring, and supervision are strategies for workplace learning environments. As Svinicki and Wilkerson suggest, when teachers are prepared and trained for the workplace, they can effectively help the student “reflect in action” and “reflect about action” as issues in professional practice emerge.

The Issues Addressed in Part III: Assessment

Galbraith et al. report on changes in the assessment of students in the workplace, arguing that “assessment has remained largely unchanged. . . and the multiple choice question (MCQ) tests introduced originally in the 1950s have become the de facto gold standard for ‘quality’ assessment.” They move the thesis forward by using medicine as the main example, but enjoin readers to examine their own profession’s assessment in a new light, saying for example: “Given the current level of patient dissatisfaction with communications skills and professionalism, the introduction of organized assessment could do much to assure patients that relevant proficiencies are being acquired and maintained.” The same arguments would be valid for nursing, teacher education, and education for the clergy, they posit.

Galbraith et al. explore the concept of a broad base of assessment. Rather than focusing primarily on knowledge and its application, they propose that assessment also include the domains of professionalism, reflective competencies, and functioning within systems of professional practice. In addition, the discussion of the movement toward lower stakes assessment that includes one’s professional

development and attitudes is becoming more prominent in the literature and the authors push us to explore new methods to assess the important learning that actually occurs in the workplace, once again contributing to learning that can be extraordinary.

Clifton and Mylona review research into the methods of assessment during workplace training for each of the four professions: medicine, nursing, theology, and education. The literature review is structured around practical assessments in three domains: knowledge, skills, and attitudes. They acknowledge that many of the methods integrate one or two of these domains but are able to help us see how we can advance our thinking of assessment in the workplace.

The Issues Addressed in Part IV: Implementation

The central argument in this book is that teachers need to learn how to be effective educators in the workplace, to include curriculum design, teaching, and assessment. The focus of faculty development (also called staff development or educational development in different countries and disciplines) is to educate the teachers for the professions. As Svinicki and Wilkerson state, “To use the more familiar workplace learning denotation, the faculty developers are the trainers who train the trainers.” The focus of that effort and of this chapter is the workplace instructor,¹ and the goal of such training is to make the workplace instructors more effective at helping students. If a teacher understands the range of factors that influence learning in the workplace, he or she will be able to develop strategies that will help move toward extraordinary learning in the workplace.

O’Brien has successfully organized the final chapter into three themes: relationships, activities or tasks, and work practices. She writes that these themes can constitute a synthetic framework for workplace learning. She references the literature and points out how the themes can enhance or interfere with learning. The critical synthesis moves us forward to identify future directions for research in workplace learning environments. The questions they pose (such as “Do students have a clearer sense of expectations, receive more guidance and constructive feedback, have a better sense of their level of performance, or feel more motivated to improve their performance if they have a longitudinal relationship with a workplace instructor?” or, “How can relationships beyond the instructor-student, be developed to enhance learning?”) begin to guide future directions for research that can be addressed across professions. In pursuing further research it is best, she suggests, to

¹To clarify the workplace settings that we have researched for this chapter, we are studying clinical settings for the medical and nursing professions, student teaching in real schools and classrooms for the teaching profession, and placements in congregations and other social service settings for the pastoral profession. This means that we are targeting attending physicians, clinical nursing supervisors, cooperating teachers, and clinical pastoral education supervisors.

use general principles rather than to focus on capturing the nuances of particular settings and professions and to search for tighter connections between “the classroom” and “the workplace.”

Summary

Many themes reappear in this book, but the overarching one is that as educators, regardless of profession, we must ensure we are teaching to promote learning and not just helping students acquire a knowledge base that has stochastic relevance to their professions. We not only aim to extend knowledge but also seek to develop the skills and the attitudes that are the backbone of each of our professions. Where we tackle the definition of learning from a broad array of theories and explore how we can prepare for our role as teachers in providing extraordinary learning in the workplace, we are not directly writing for any one profession but for many, citing four that are relevant and provide cogent examples. Although many chapters focus on the literature of medicine, we aim to integrate the literature from education, nursing, and clergy as we believe our effort is essential and relevant to all educators who teach in the workplace.

References

- Bloom, B. S. (1956). *Taxonomy of educational objectives: Cognitive domain*. New York: McKay.
- Dewey, J. (1938). *Experience and education*. New York: Kappa Delta Phi, Touchstone.
- Freidson, E. (1970a). *Profession of medicine: A study of the sociology of applied knowledge*. New York: Harper & Row.
- Freidson, E. (1970b). *Professional dominance: The social structure of medical care*. New York: Atherton Press.
- Harris, I. (1991a). Contributions to professional education from the field of curriculum studies: Research and practice with new traditions of investigation. *Professional Education Research Quarterly*, 13, 3–16.
- Harris, I. (1991b). Deliberative inquiry: The arts of planning. In E. C. Short (Ed.), *Forms of curriculum inquiry* (pp. 287–321). Albany NY: State University of New York Press.
- Harris, I. (1993). Perspectives for curriculum renewal in medical education. *Academic medicine*, 68, 484–486.
- Hawkins, D. (1974). *The informed vision: Essays on learning and human nature: Messing about in science* (p. 63). New York: Agathon Press.
- Merriam-Webster Online Dictionary* (2009). From <http://www.merriam-webster.com/dictionary/extraordinary>. Accessed August 1.
- Schwab, J. J. (1978). The practical: A language for curriculum. In I. Westbury, N. Wilkof (Eds.), *Science, curriculum and liberal education: Selected essays* (pp. 287–321). Chicago: University of Chicago Press.
- D. A. Schön. (Ed.). (1991). *The reflective turn: Case studies in and on educational practice*. New York: Teachers College Press.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco: Jossey Bass.
- Schön, D. A. (1995). The new scholarship requires a new epistemology. *Change*, 27(6), 26–34.
- Shulman, L. S. (2005). Signature pedagogies in the professions. *Daedalus*, 134, 52–59.
- Tyler, R. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

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From the Series Editors

About the Book Series

The overall purpose of the Book Series “Innovation and Change in Professional Education” (ICPE) is to promote innovation in the field of professional education based on current research and thinking in the learning sciences. We provide a platform for exchanging experiences and knowledge about educational innovation and change in professional education and post-secondary education (engineering, law, medicine, management, health sciences, etc). The series provides an opportunity to publish reviews, issues of general significance to theory development and research in professional education, and critical analysis of professional practice to the enhancement of educational innovation in the professions.

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About This Book

The 6th volume – edited by Janet Hafler from Yale University – in our book series presents a broad perspective on how various professions are more and more focusing on capturing the importance of professional practice in curricula for professionals. It provides a synthesis of topics that support educators to improve learning experiences for students in the professions when dealing with program design, learning and instruction, and assessment. It furthers our understanding how learning at the workplace can become central in the training of professionals and how learning in the workplace can be an extraordinary learning experience for students.

The idea for the present and several forthcoming volumes in this book series was initiated by Marcia Mentkowski from Alverno College, Milwaukee Wisconsin, when she served as Vice President of Division I (Education in the Professions) of the American Educational Research Association (AERA). She encouraged the editor

and authors to continue their hard work and cooperative effort to write this important volume. The editorial board of the ICPE book series wants to express their gratitude to all people who made this volume possible.

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