

**Maintaining Professional Competence: Approaches to Career Enhancement, Vitality, and Success throughout a Work Life**, edited by Sherry L. Willis and Samuel S. Dubin, Jossey-Bass, San Francisco, CA, 1990, 328 pp.

This book focuses on the maintenance and enhancement of professional competence by mid-career and senior-level individuals who face the challenge of avoiding obsolescence in an environment of rapid technological and informational change and innovation. One goal of this book is to present a conceptual framework for maintaining life-long professional competence. Much has been written about this challenge, however, prior to this treatise, the literature has been mostly discipline (e.g. organizational behavior, psychology, education) or profession (e.g. medicine, engineering, etc.) specific. Thus, a second goal of this volume is to provide a common or multidisciplinary framework and terminology for the study of issues pertaining to the evaluation, maintenance, and enhancement of life-long professional competence. In addition, the book suggests emergent directions for research in the areas of measurement and maintenance of professional competence.

The conceptual framework and models presented emphasize that maintaining life-long professional competence is a joint individual and organizational responsibility. The former must be motivated to keep up-to-date and the latter must provide a suitable work environment to reinforce individual motivation and growth.

The book begins with several chapters discussing the main reasons for concern with a degradation of professional competence (PC) and why professional obsolescence occurs. In chapters one through three the authors argue for why the issue of maintaining and enhancing PC is important. Chapter 1, "Maintaining competence through updating" by Dubin, not only defines the pertinent terminology of this subject but also argues for the joint individual and organizational responsibility in maintaining life-long PC. Dubin also presents a model in which the probability that an individual will maintain PC through updating of skills and knowledge is dependent upon both individual motivation and various aspects of the work environment such as work assignments, supervision, organizational climate, management policies, and peer-colleague interactions.

This first chapter and other chapters in which individual motivation is discussed as being relevant to maintaining life-long PC are based on the expectancy theory of motivation. Stated simply, expectancy theory suggests that motivation to perform is dependent on the individual's expectation (i.e., predicted probability) that an expenditure of effort will lead to an outcome desired by the individual: you work hard for what you want but only if you know that you will get what you want as a consequence of your hard work.

Chapter 3, “Marketplace and organizational factors that contribute to obsolescence” by Fossum and Arvey, builds on the first chapter by its inclusion of the labor market in the conceptualization of the problem—unfortunately this is the only chapter which does include this variable. These authors also make the important observation that rather than focus on remedying obsolescence it would be beneficial to focus more effort on its prevention in the first place. A final point made here, and earlier by Dubin, is that individuals can experience obsolescence in their current position as well as for the future.

The final chapter in this introductory section of the book, “How adult development, intelligence, and motivation affect competence”, is by Willis and Tosti-Vasey. These authors define PC as a function of several variables, among these are cognitive ability, interpersonal skills, motivation, education, and training. Their major contribution concerns the evolution and measurement of cognitive ability. They have found that there is no reason why PC is not possible to maintain throughout one’s career as cognitive abilities do not deteriorate appreciably over time—a finding that may be particularly reassuring to older professionals. They go on to suggest that the measurement of PC would best be based on behavioral testing, i.e., testing abilities and competence on typical task behaviors.

Part II of this book looks at the measurement of PC. It is not meant as a definitive statement on the subject but rather it provides an overview of several approaches that appear fruitful. The four chapters in Part II are dominated by the evaluation of professional competence in the field of medicine (Chapters 4 through 6), whereas the final chapter of this part presents a more general approach to the measurement of life-long professional competence.

In all fairness, it must be noted that because the topic of maintaining PC has developed in parallel in a variety of disciplines, the measurement of PC has been profession-specific (medicine, engineering, etc.) and there are different definitions of professional competence across the professions. However, the use of BARS (behaviorally anchored rating scales) is a promising approach. By identifying the activities required, one can infer the knowledge and skills needed.

In Chapter 4, “Linking theories of competence to the construct validity of performance assessment tests”, Maatsch looks at the use and effectiveness of certification and recertification exams for emergency medicine physicians, a new medical specialty, and suggests it as a possible model for the evaluation of ongoing PC and updating in other professions. Professional competence is defined as a function of three constructs. These are relevant knowledge (K) or skills, problem solving abilities (PS) or the ability to apply the knowledge in a useful manner at the appropriate time, and general competence (G) or interpersonal skills, intelligence, motivation, personality, general knowledge base, etc.

Chapter 5, “Measuring individual differences in clinical competence: the case

of emergency medicine” by Reinhart and Keefe, builds on the previous chapter in that it looks at variations in PC over time and also asks whether an individual’s score on the original certification exam, taken just after completion of formal training, is in any way predictive of future PC. The authors also note that even the best tests of knowledge will not be able to determine what, if any, differences arise from differences in professional experiences. This would be important to know because it might then be possible to identify which types of professional experiences contribute to either the retention of knowledge or facilitate new learning. However, they did find that the greatest increase in knowledge (K) was for those working in enriched settings (especially teaching hospitals in conjunction with ongoing private practices).

In Chapter 6, “Using a computer-based simulation model of assessment: The case of CBX”, Melnick provides us with an overview of a computer-based simulation that has been used by medical professionals to test themselves against criterion set by the profession. The simulation also provides feedback enabling users to compare themselves with peers.

The final chapter in Part II, “Enhancing the performance of professionals: The practice-audit model” by Queeney and Smutz, presents a model that is applicable to a variety of professions. The model assesses both learning or knowledge and an individual’s ability to utilize or apply knowledge—K + PS as in the preceding chapters. Their program has two steps: the first is to identify gaps in knowledge and problem solving skills; the second is to design a program to meet the needs identified in the first step. The program requires input from professional organizations, educators, and certification groups to both develop and deliver the program.

Part III of the book has three elements to it. First is identifying deficient skills—those either never learned or those lost over time (Chapter 12 and Chapter 7 in Part II), second is a look at how to make changes in the work environment (Chapters 8, 10, and 11), and third is a look to the future (Chapters 13 and 14).

This book presents the maintenance and enhancement of professional competence as a joint individual–organizational responsibility. The chapters in Part III define in more detail than earlier what is meant by organizational responsibility: providing challenging work assignments to increase intrinsic motivation, a return to expectancy theory (Chapter 8 and 9); organizational flexibility, and an organizational commitment to individual professional development, both short and long-term.

As Berlew and Hall (“The socialization of managers: Effects of expectations on performance”, *Admin. Sci. Q.*, 11 (1966) 207–223) noted many years ago, a challenging yet doable initial job assignment is best for setting expectations high enough to ensure that future job challenges will be met and desired by employees. Organizations must also be sufficiently flexible to allow employee movement into new areas or to take temporary leaves to further their training.

Allowing for moves into other areas can stimulate new learning and cross-fertilization of ideas, which is beneficial to enhancing individual professional competence and therefore “organizational competence” as well. Overall, organizational climate and management and supervisor behaviors must be consistent with the commitment to support and facilitate individual life-long PC.

Using the expectancy theory of motivation as a basis for individual involvement in maintaining and updating professional competence means that individuals will ask whether or not their effort spent on updating is worthwhile. Chapter 8, “Enhancing motivation to participate in professional development” by Farrand Middlebrooks, and Chapter 9, “Strengthening competence and vitality in mid-career faculty” by Votruba, further suggest that it is the intrinsic rewards (i.e., the desire for challenge, autonomy, deriving meaning from one’s work, involvement in organizational decisions, etc.) rather than extrinsic rewards (e.g. salary increases) that motivate professionals to update and maintain their PC.

Chapter 10, “Organizational, environmental, and work design strategies that foster competence” by Miller, reminds us that unused and under-used capabilities must not be overlooked as they will deteriorate over time. In a similar vein Chapter 13, “How information systems can help build professional competence” by Granick, Dessaint, and VandenBos, reminds us that PC is determined by initial training plus new training plus updating of lost skills and the ability to use training and skills. They add that the improvements in ease of access to and ease of use of on-line data bases of abstracts and articles should facilitate maintaining PC in the future.

In Chapter 11, “Management techniques for maintaining a competent professional work force”, Kaufman provides a helpful list of specifics for organizations and for individuals of how to be more successful at maintaining and enhancing PC. Chapter 12 by Sprafkin and Goldstein, “Using behavioral modeling to enhance professional competence”, attempts to show how behavioral modeling using reinforcements can be applied to maintaining professional competence. This chapter is weak when it comes to a direct application of behavioral modeling for professionals concerned with avoiding obsolescence of skills or loss of PC. Instead it focuses more on applications of modeling for psychiatric patients (which is where it originated), bluecollar workers, and police. However, if the approach were to be applied to maintain PC it would presumably focus on reinforcing behaviors such as reading journals, developing new skills, seeking out challenging assignments, and the like.

The final chapter by the book’s editors, “Maintaining professional competence: Directions and possibilities”, provides a brief summary of the earlier chapters and urges more work on this topic. They are particularly supportive of future work on interactive assessment and clarifying measures of PC. This volume does an excellent job of identifying causes of loss of professional competence and of identifying its maintenance as being the joint responsibility of

individuals and organizations. However, it does fall short of its goals in two areas: integration across disciplines and measurement. Though the latter can be forgiven as being too complex to handle in just a few chapters in a general treatise on PC, the former shortcoming is regrettable. From the introductory chapter, I was expecting a more thorough integration of the subject matter across disciplines than was presented.

Also missing was the recognition of the role extrinsic rewards may play for some professionals. The chapters referring to expectancy theory stressed the importance of intrinsic rewards, however, it is possible that some professionals seek a mix of intrinsic and extrinsic rewards. This is an important point as ignoring extrinsic rewards may, in some cases, cause a failing of the application of expectancy theory which requires that rewards given be desired by those you are trying to motivate.

This book is useful in that it identifies causes of diminished PC, defines terms, and presents a variety of measurement approaches in different settings—for different professions—by individuals from a variety of disciplines. In addition, it stresses that maintaining and enhancing PC is a joint individual and organizational responsibility.

Overall, both academicians and practitioners can benefit from the cross-disciplinary approach of this book by learning about measurement of PC and also how the issues are similar or different across professions and disciplines. Professionals can learn how self-assessment of their own PC, along with feedback on means of remedying shortcomings both present and future, can be beneficial to them, to their colleagues, and to their employing organizations.

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