Using Simulations for Education, Training, and Research

The underlying premise for the series, of which this book is part, is an interesting one—not only to explore a key research question from the point of its parent discipline but also to address those issues from the perspectives and methodologies of other disciplines also working in that field. The theme for this book is simulation-based education and management of acutely ill patients, and with an increasing availability of simulation technology and an increased demand for simulation-based education in healthcare, the timing is appropriate.

The research questions are phrased in terms of the features of simulation that make it work. Those of us involved in simulation-based teaching recognize that there is something about this method that differs from many of the other formal teaching methods we have used. The experience seems to impact on learners/participants in a different way from other teaching methods and seems to offer educational opportunities that few formal teaching methods offer. The authors begin from the basis that to better understand this, we need to explore the phenomenon in its social setting of humans working together in a situated context. What makes that work better? What makes it more effective? What needs to be simulated for effective learning? These are questions that go to the heart of this way of teaching and learning.

The core of the book is contained in parts I and II, and I found these extremely illuminating. The chapter on ecological validity of simulation sets the scene effectively for Dieckmann's chapter, taken from his own work in this field. To a nonpsychologist this is not always easy reading, but the authors have done a very good job of making the material accessible. I had to reread some paragraphs to fully understand the concepts, but this was due to unfamiliarity with the background literature rather than due to shortcomings in the way the book is written. The effort spent is well worth it as the reader is encouraged to reflect on the key issues highlighted by the authors while reaching a much greater depth of understanding of what constitutes simulation-based teaching. Although I have read short articles by Dieckmann and have witnessed presentations on this topic, I had not fully appreciated the larger picture presented in these two chapters.

The next issue to consider is the contribution made to understanding the phenomenon by looking at approaches from other perspectives. Do they help? Do they illuminate? The chapter on experiential learning by De Werdt et al does that by addressing the phenomenon of simulation from an educational perspective and by working from a model of how different forms of experience contribute to the development of a better understanding of the phenomenon being taught and where simulation-based teaching fits into this model. This, in my opinion, is exactly what the series intends—a different perspective on the themes of the research question helping to illuminate those questions and by doing so illuminating the work of the researchers.

In the chapter by Mehl, I found less illuminating. The chapter was well written, with good access to supporting literature, and the author has made a good argument for his thesis that data from simulation can help learners identify the areas most in need of further development. I felt that the nature of what was being explored was very "technical" and further away from the social considerations that occupied that main chapter. The chapter by Johnson was the weakest in the sense of illuminating the key research question. The chapter focuses on two projects that she herself undertook, and taken in isolation, the chapter is interesting and has useful commentary for those involved in the healthcare simulation-based teaching community. However, I would have preferred more space to be given to the theoretical base underpinning her work. The term "communities of practice" was used in the introduction in connection with this chapter, and I was disappointed that that there was so little reference to some very interesting work done in this field. Perhaps, the editors could have given more explicit instructions to the author on the nature of the book. The final chapter in Section III addresses the shortcomings that I listed. Rettedal provides a succinct account of some theory underpinning his expertise as a conjurer and applies this to simulation-based teaching. We, as readers, are once more encouraged to reflect on the nature of simulation and reality and the link between them.

Overall, the book has many more positives than negatives. Parts I and II provide some relevant material that although theoretically sound is of great practical benefit in helping us think about what we are trying to achieve in simulation-based teaching.

Who should read this? Anyone who has responsibility for simulation-based teaching programs or is thinking about embarking on such programs will find a lot of food for thought and will have a much better developed framework with which to reflect on their current practice.

The authors are congratulated on producing such a stimulating and accessible piece of work of great relevance to the world of simulation-based teaching.

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