

tion of the learner from unconscious incompetence through awareness to conscious incompetence and so on, until he or she reaches the level of unconscious competence and mastery. Following this introduction, learning is rarely addressed directly in the text but is, ostensibly, guided by the tools provided for inquiry and process management.

In short, the book may be useful as a supplementary source of practical tools for a course or training program that focuses on the management of planned, strategic change or as a resource to draw on for its lists, tables, and graphic models. It would be a particularly good choice for students who, by inclination or training, think in a highly structured fashion. The electrical engineer sitting next to me on the airplane perused it avidly over my shoulder. "It's my kind of book," he said, "a lot of models and not much text." Need I say more?

Simulations and the Future of Learning: An Innovative (and Perhaps Revolutionary) Approach to e-Learning, by Clark Aldrich, Pfeiffer/A Wiley Imprint, October 2003, 282 pages, clothbound.

Reviewed by Joseph Wolfe, Experiential Learning LLC.

In this book Clark Aldrich, the highly quoted and noted e-Learning guru, gives the reader his take on how our traditional education and management development programs are inadequate and misdirected while offering his solution in the form of a case study on the development of the award-winning simulation *Virtual Leader*. Along the way, often with trenchant humor and colorful examples, the author takes jabs at those with PhDs after their names and other establishment characters whose teaching methods are out-of-step with the realities of today's game-trained youth.

Pfeiffer, which publishes a wide range of products for training and human resource practitioners, states the book will provide the reader with an understanding of the power of the simulation method, why it is such powerful medium, and what it takes to build a simulation that embraces all that e-Learning can be. Through this exposure, the book's authors also intend that those in the field can be better evaluators of the many simulation packages available for management training and development purposes. The book covers four parts spread over 21 chapters plus an epilogue, each of somewhat varying length and detail. Part I deals with what the player sees and reacts to when en-

gaged in the simulation's content. Aldrich describes this content as being a "palette," which can be presented in linear, cyclical, and open-ended ways. While all delivery methods are essential, and traditional teaching methods employ high doses of linear content, a well-designed simulation can present its content in cyclical and open-ended fashions, which are more developmentally rewarding. In this part the text then moves to the "what" of content and describes the process by which the simulation's development team captured what it believed was the essence of leadership, as it had determined it wanted to simulate one of classical management's major functions. After assembling the quotes of many leaders, the development team came to define leadership as the ability to accomplish ends through others. In bringing about these ends the leader must manage and control three forces. The first force is *power*, which emanates from the leader's formal authority and personal influence, the alliances that exist between the leader and the group, and other alliances which have been formed between all remaining parties. The second force is *ideas*—how they are found and how they are successfully introduced. The last force is managing the *tension* level that exists within each group member and the group itself so this level is not too high or too low for bringing about a successful conclusion.

Part II is more involved with the "nuts and bolts" of creating *Virtual Leader*, SimuLearn's leadership simulation. Here the reader is taken through the generic parts of a simulation package—its required inputs, the calculations or processing it goes through, and its outputs. In this case the graphic interface presents five meeting sites as the decision-making process moves up the organization's chain accompanied by five decision makers or "bots" with which the player must interact. To make the simulation realistic the characters had to move, act, and respond in various ways. They do this based on an artificial intelligence system designed to capture each one's power, idea, and tension levels in a decision-making environment that constantly changed based on the dynamics of the situation itself.

Although the game's designers had already made a number of parameter-defining decisions along the way, Part III discussed the hard realities forced on the development team. These realities were caused by how players might interact with the game, how the game should feel, the use of grades to indicate performance, and the level of reality required to enable the simulation to teach while not being overwhelmingly complex and too

expensive to make and sell to prospective customers.

In Part IV and the book's epilogue, Aldrich summarizes what he feels are the key issues facing the simulation field: the nature of the training and development industry and the sources of the field's new ideas. Taken in total there is much work to be done on both the technical and conceptual levels. The training and development industry's last great training effort was the quality movement, and the sources of the field's newest creative efforts will come from those who have been turned off by higher education's linear teaching methods but know there must be a better way.

Space does not allow for a full exposition or a complete appreciation of the enormity of what Aldrich and his development group have done, for much goes into creating a simulation that attempts to capture even a small slice of reality. In this case his challenge was even greater than that faced by those who have designed top management business games because his team was trying to encapsulate the multilevel interactions that can and do exist between five computerized characters and a human, intervening player. Regardless of the quality of the algorithms and programming used to create the simulation, the true proof of a simulation for most people lies in its play. Those interested in at least *Virtual Leader's* face validity can review much of its appearance at www.simulearn.net or join any one of its weekly seminars featuring actual play at webcast@simulearn.net to judge for themselves. While the question of the simulation's face validity may be satisfied through this exposure, the theoretical validity of many of its components, as well as its internal and external validity, is open to question (Feinstein & Cannon, 2002) in the former and subject to rigorous examination in the latter.

Regarding the need for theoretical validity, this reviewer was struck by the serious disconnect found between management education and development's applied world and the work conducted in the esoteric halls of academe. This disconnect has often been noted and felt by those in the Academy of Management (Beer, 2001; Hambrick, 1993), and it was readily apparent here. Aldrich searched for solid, applied ideas about the nature and practice of leadership among those denizens, but found five unproductive types—Figureheads, Control Freaks, Pass-Off Masters, Linear Headliners, and the Time Challenged. Rather than being able to use any one of the many highly researched leadership theories available, such as the Trait or, Behavioral approaches, Contingency Theory, Path-Goal Theory or the Vertical-Dyad Linkage Model, Aldrich cre-

ated another theory of leadership generated by his group's isolated intuitions. Work that has been done in the field of group decision-making dynamics could also have been of great help, but Aldrich again created his own theory of how decisions get made in such situations.

All things considered, does this book achieve its objectives? In Part II, which deals with the team's building of the game's model, it reaches the excitement of that found in Kidder's *The Soul of a New Machine* (1981). Anyone who has designed a simulation should easily identify with problems, anxieties, and dilemmas faced by the design group as its lines of code quickly mushroom and time slips through their fingers. Part IV offers a great number of insights into the nature and philosophy of progress in a science of simulation design. On the other hand, the presentation and its rationale for why simulations are the wave of the future, is on very shaky ground unless the reader accepts a number of Aldrich's debatable premises. Some of these premises are:

- Today's generation of business school students and managers expect to be taught by interactive and graphically exciting media, and they cannot learn by any other method.
- Business school students and managers have had little past exposure to experiential learning methods.
- A computer-based simulation is the only kind of experiential learning environment that is fully productive.
- The essence of leadership can be experienced through a series of six-member, formal decision-making sessions.
- The theories of leadership and group decision-making practice modeled are correct or are more complete than any other available set of theories.
- The interface's appearance and dynamics affect all users in the same fashion and in the fashion designed by the simulation's creators.

In a very strict sense the unacceptability of any one of these premises severely restricts e-Learning's potential as well as *Virtual Leader's* value as a management education and development device. Alternatively, even if these premises are at least partially correct, that may be enough to improve the leadership skills of anyone participating in the exercise. The ability to improve the player's leadership skills can be found, however, only through rigorously pursued evaluation studies. This is an altogether different endeavor and takes a different kind of mind-set. It is hoped the author's enthusiasms for creating this e-Learning apparatus are enough to determine if *Virtual Leader* works, and if so, why.

REFERENCES

- Beer, M. 2001. Why management research findings are unimplementable: An action science perspective. *Reflections: Society for Organizational Learning and Massachusetts Institute of Technology*, 2(3): 58–65.
- Feinstein, A. H., & Cannon, H. M. 2002. Constructs of simulation evaluation. *Simulation & Gaming*, 33(4): 425–440.
- Hambrick, D. 1993. What if the Academy actually mattered? *Presidential Address*, 1993 Academy of Management Meeting, Atlanta, GA.
- Kidder, T. 1981. *The soul of a new machine*. Boston: Little, Brown.

Learner-Centered Theory and Practice in Distance Education: Cases From Higher Education, by Thomas M. Duffy and Jamie R. Kirkley (Eds.), Mahwah, NJ: Lawrence Erlbaum Associates, 2004. 453 pages, soft cover.

Reviewed by J. B. Arbaugh, University of Wisconsin—Oshkosh.

For many people these days, the idea of having a face-to-face meeting to discuss distance education seems somewhat oxymoronic. However, such meetings can be fruitful as is demonstrated by the book *Learner-Centered Theory and Practice in Distance Education: Cases From Higher Education*. This book was developed from a 3-day symposium held at the Asilomar Conference Center in 2003. According to the editors, the book serves two primary purposes: The first is "to bring the voice of the learning sciences to the study and design of distance education (p. xi)." The second was to have the eight programs studied during the symposium presented in enough detail that readers could understand the various pedagogical approaches and the challenges of implementing them. In my opinion, the editors succeeded on both counts.

In spite of being a collection of 19 chapters, each with a different author, several common themes run through the book. These themes are both deliberate and emergent. A common focus of these programs is their use of problem-based or inquiry-based learning, the orientation of which is intended to help students learn for themselves and in concert with others using a specifically defined issue or problem as a common reference point, and an instructor whose primary role is to guide and facilitate that learning process rather than to merely dispense information. The "How People Learn" framework developed by John Bransford and colleagues (1999) appears often, as does the

communities of inquiry framework developed by Terry Anderson and colleagues (Garrison, Anderson, & Archer, 2000). One common theme that emerged was the importance of participant interaction in distance learning. This was reinforced not only by several examples of positive learning outcomes when interaction was emphasized, but also how it appeared to adversely affect learning when it was minimized or omitted. Peter Shea and colleagues from the SUNY Learning Network commented that "we feel that the importance of interaction in teaching and learning cannot be understated" (p. 369), possibly the most understated comment in this book.

Learner-Centered Theory and Practice in Distance Education has an unusual structure. Developed from chapters about eight distance education programs, the book describes how their programs applied learner-centered theory. Each chapter was accompanied by its own reactant chapter prepared by experts in the field of distance learning, including on-line learning researchers, such as Terry Anderson and Lani Gunawardena. These chapters were then complemented by a written account of their discussion by the all the chapter authors during the symposium. The benefit of including these discussions is that they help the reader identify emerging or unresolved issues in both the teaching and research of distance education. The book also is somewhat unusual in that it incorporates a multidisciplinary perspective. The programs studied offer degrees in subjects ranging from library science to education to the hard sciences to business, with coverage for both undergraduate and graduate student populations.

After an introductory chapter by Duffy and Kirkley, the book is divided into five sections. In the first, entitled "Community Building," Linda Polin and Karen Ruhleder detail community-building efforts within the on-line master's program in educational technology at Pepperdine University and the University of Illinois' synchronous on-line master's program in library science, respectively. Scott Grabinger and Mark Schlager responded to these chapters, discussing theoretical and methodological implications of studying on-line course designs. The next section, entitled "Problem-Centered Learning," focused on two MBA programs that were delivered at least primarily on-line: the program developed for Cardean University and Ohio University's MBA Without Boundaries (MBAWB) program. The responding chapters focused on some pedagogical challenges and research methodological opportunities concerning on-line learning. Lani Gunawardena suggested that inquiry-based learning requires at least some

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