## Sources of Power: How People Make **DECISIONS**

By Gary A. Klein; Cambridge, Massachusetts: MIT Press, 1999; 352 pages; \$21.95.

s a practitioner of project management, I am constantly trying to learn how to be more effective. The odds are against me. Some studies claim that more than half of all projects are late and that almost every project goes over budget. This disturbs me, since we advocate a "lessons learned" exercise for every project—a postproject review that attempts to determine what went wrong, why it went wrong, and what could have been done differently that would have prevented the wrong from occurring.

My professional angst led me to a psychologist, Gary A. Klein, the author of Sources of Power: How People Make Decisions (MIT Press, 1999). Klein has studied decision making in a variety of professions, from fire fighting to nursing. He tries to understand "how people handle all of the typical confusions and pressures of their environment, such as missing information, time constraints, vague goals, and changing conditions," he says. If that description sounds like your project, read on.

According to Klein, while decision making seems to favor the experienced person (an obvious conclusion), the experience must often be put into context to be made meaningful (a not-so-obvious conclusion). In the book, he cites a group of midwestern firefighters trying to battle an oil tank fire. They had experience fighting fires-mostly barn and garage fires—but the different context of the fire (an oil tank) meant their experience was not meaningful and they ended up calling in consultants to extinguish the fire. "Years of experience are not beneficial if we cannot make meaning of and apply the experience," says Klein. "That is why building a meaningful experience base is important."

For the profession of project management, that meaningful experience base, if it exists at all, takes the form of lessons learned. This is our attempt to extract and capture knowledge for future use. My attempts to relate Klein's work to project management have led me to conclude that we need to continue doing lessons-learned exercises, but we should be doing them earlier and more frequently.

For most projects, the lessons-learned task is literally an afterthought, done at the end of a project (if the project hasn't been canceled because of delays or overruns). By this time,

much of what happened has been lost. Summarizing lessons learned earlier and at more frequent intervals throughout the project increases the likelihood of recording highly accurate information. The key here, according to Klein, is "to reduce the time between the occurrence and the outcome of an event."

The reason for carrying out the exercise more often is to increase the amount of data you collect. That doesn't mean that the more data the better (we're after knowledge here, not data); rather it means increasing the chances that you'll capture "a prior case with a known outcome and a semiknown set of causes," says Klein. More frequent recording of lessons learned may increase the probability of linking cause to effect, although that is never guaranteed. The purpose of all this is to build experience that can be applied to future projects to get better results.

But a better experience base is worthless if it is not applied. Getting it applied involves changing top management, and there have been thousands of articles written about that topic. A better way for our profession to apply lessons learned to the legions of people doing the daily work of project management is to provide training that is based more on case studies.

Case-based training focuses on the practice of project management. It allows students to use their experience (or lack thereof) to interpret what happened in a certain case: why the project was late, how the scope of the project increased, and so forth. While training is still no substitute for experience, case-based training serves to reduce the realworld delay between event and feedback and can sometimes link cause and effect more directly. Klein believes that inexperience is a greater factor in bad decisions than faulty reasoning, and case-based training—used in the professions of medicine and law-provides a way to simulate experience in a shorter period of time.

An old joke defines insanity as "doing the same thing and expecting different results." It appears that our traditional lessons-learned exercise and teaching methods haven't done much to improve our track record. I suggest we consider changing them, because according to the statistics we still have a lot to learn.

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