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The Right Way to Maintain Expertise in Health Care

When employees retire, your organization loses its expertise. Identify and articulate the expertise, and accelerate achievement to ensure that you don't lose knowledge.

December 11, 2014 | Brian Moon

Modern health care is the epitome of expertise-driven work and health care workers draw on their experience every day to solve problems.

The health care industry faces enormous risk as its workers retire and this expertise departs. While workforce development initiatives such as those suggested in [this 2001 AHA-sponsored report](#) are underway, in some critical fields such as perioperative nursing, the pipeline for staff nurses and leaders remains a concern. Moreover, hiring alone won't solve the problem of expertise loss.

Still, many health care organizations take a passive stance toward managing expertise. Training events focus on how to manage tasks and information systems while seasoned experts walk out the door. Experienced personnel sometimes provide on-the-job guidance to juniors, but such exchanges rarely tap into genuine expertise.

Other industries that count on expertise for critical operations have taken an active stance toward managing expertise. The military, which self-imposes turnover, has a long history of studying expertise — much of what we know about how personnel develop expertise has come from naturalistic study in military contexts. The utilities industry, which faces mass retirement of its most experienced engineers and technicians, has developed approaches, tools and organizational designs that help to identify genuine expertise, enable experts to articulate what they know, and accelerate the achievement of expertise in others — in other words, expertise management.

Identify the Experts

The first step in managing expertise is to identify the expertise that requires active management. To characterize its risk, the Tennessee Valley Authority developed a [knowledge loss risk assessment](#) that provides a quantified look at attrition risks based on how critical a position is.

Organizations also can identify their "franchise experts" — personnel who possess all of the characteristics typically attributed to experts, but who also exhibit several other atypical features of performance. Franchise experts recognize that to achieve the mission, work needs to be done at the edge of the familiar. They recognize the uncommon or irregular. They know how and when to improvise, particularly when situations go beyond the typical.

Franchise experts anticipate not only consequences throughout a system, but also the collateral consequences to other systems. They demonstrate a willingness to improvise, and are often called on to be an ad hoc solution provider. They develop and use memory artifacts that are unique organizing schemes and reinforce the structure of their knowledge.

Franchise experts also are learning continuously. They are students of their craft and practice it with zeal. While others may wish to forget about their last fault, franchise experts think about their past mistakes, which both gall and intrigue them. Unlike the expert who may become engrossed in the problem at hand, franchise experts have the ability to consider the perspectives of others involved in the situation.

For colleagues who rely on franchise experts, their absence can be a traumatic event. They have the admiration of their peers and subordinates and develop a knack for employing their special position in advancing the mission. While they may find themselves in management roles, they are not always comfortable there. They expect to be compensated, but typical compensation packages are not the only, or even the most important, carrots they seek.

Franchise experts, much like franchise players on professional sports teams, should be considered targets for special attention of the next stage — articulation.

Articulate the Expertise

Decades of research have refined methods for helping experts to articulate what they know. Knowledge elicitation is a set of interviewing practices that home in on the cognitive elements of performance and the socio-technical aspects of the workplace. Knowledge-elicitation techniques range from naturalistic observations and interviews to scenario-based interviews that pose hypotheticals (for example, if a new technology is introduced). On the naturalistic end are protocols for capturing critical incidents in which expertise is exercised, as well as diagramming techniques for laying out the "mental models" experts use to explain and anticipate.

These techniques go well beyond what is typically captured in exit interviews. They dig deeper to help understand the "why, when, where and how" of performance, not just the "what" that comes from task and position descriptions. There are many [knowledge elicitation techniques available](#), and successful implementation requires planning and, more importantly, skill. While we know that an expert's tacit knowledge can be elicited when experts are given proper structure and prompting using knowledge-elicitation strategies, the challenges of knowledge elicitation from franchise experts seem to push the edge of what is feasible.

But once articulated, the expertise of one can be used to help accelerate the achievement of many.

Accelerate the Achievement of Expertise

Research in the military suggests that individuals performing about 85 percent of current jobs can be trained using established methods and performed by individuals who are proficient. Yet, expertise studies, which have focused on fields including health care and firefighting, have shown that it takes years of extended training and experience to produce genuine expertise.

Cognitive scientist Robert Hoffman and colleagues recently have outlined a range of [programs for accelerating the achievement of expertise](#). They comment on the widespread use of mentoring, and encourage organizations to move beyond implementing a "mentoring culture" to developing capacities that help people become better at mentoring. They also note the value of problem and scenario-based training, which can take full advantage of the content derived from knowledge elicitation.

Intuition researcher Gary Klein has developed the ShadowBox scenario-based method to train novices to see the world through the eyes of experts. The method has demonstrated its value in several fields, including child protective services, military operations and firefighting. In a controlled experiment with firefighters, ShadowBox trainees matched expert-level decision-making 18 percent more than a control group. In 2015, ShadowBox will be evaluated using nursing students at the University of Texas at Arlington.

Show Return on Investment

Expertise management comes, of course, with a price. Implementing such programs requires time and money. Yet, organizations that have chosen to take the active stance have seen real gains.

Wake Forest University's Denise McManus and colleagues developed a return on investment methodology for knowledge-retention programs, and tested it in four case studies from finance, customer service and manufacturing industries. They found "clear, positive, bottom-line results" to the tune of several hundreds of thousands of dollars.

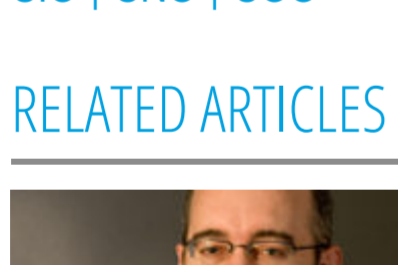
Taking another view of the risk management question, David DeLong, author of *Lost Knowledge: Confronting the Threat of an Aging Workforce*, has pointed out the risks of *not* managing expertise, including increases in errors, decreases in efficiency and reduced capacity to innovate.

While expertise management may require shifting priorities and adjusting apertures, taking the active stance can go a long way toward mitigating the coming risk of expertise loss. Bridges to the next-generation health care workforce should include programs to identify, articulate and accelerate the achievement of expertise.

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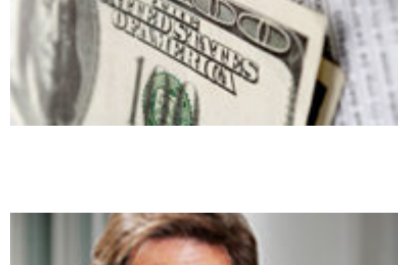
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