



The Power of the Mental Model: How to Think Like an Expert

The top priorities of today's CEOs include business growth, innovation and human capital development^{1, 2}. One critical success factor for all of these goals is productive employees with the right skills and expertise. Your challenge as a learning and development professional is to find effective methods to help your company accelerate competency and rapidly create the experience it takes to generate significant business results.

Wouldn't it be great if you could teach your employees to think like your best experts?

Becoming an Expert

True expertise has three features: it must deliver performance that is consistently superior to that of other practitioners; it must lead to successful outcomes; and it must produce repeatable results. Ericsson's research shows that expert-level performance is not a result of innate talent or genetics; it can be created by years of deliberate practice and coaching³.

This level of performance takes time – 10,000 hours of training over ten years is a common benchmark. It also requires the guidance of a skilled coach or mentor who can give constructive feedback and introduce challenges that drive higher levels of performance. While many companies need a small core of experts acting as thought leaders to create competitive advantage, not everyone needs to perform at the expert level. It still takes many years for new hires to become competent performers, able to make risk-based decisions with minimal guidance.

Fortunately, there are several practical methods you can use to significantly cut the time it takes for employees to reach a competent performance level: mental models, coaching and social learning.

Mental Model

An expert seems able to observe a situation, quickly recognize relevant characteristics and almost immediately recall solutions that have worked in the past or even suggest a new approach by synthesizing results from several past experiences. Ericsson⁴ describes this performance as an ability to efficiently encode the knowledge of events and solutions using the most important domain-related concepts learned over years of practice. Rapid retrieval of solutions follows as they are able to filter out much of the situation's information. Less experienced people take much longer to determine what really matters. These concepts form the expert's mental model.

I have found that experts are often able to articulate these key concepts. They can also describe patterns of characteristics they have observed in both good and abnormal situations. This knowledge can be efficiently mapped and taught to less experienced practitioners, significantly reducing the customary years of trial and error trying to figure out what is actually important. The mental model is a useful framework, like the index for a filing cabinet. But to think like an expert, practitioners need to use the model to catalog experiences in their personal knowledgebase of problems and solutions.

If the only way to really learn is by doing, is there any way to gain more knowledge from each experience?

Coaching

A coach can further accelerate competency by providing feedback as the practitioner observes and interprets information, forms conclusions and proposes actions. The coach can also share additional, less common

examples that add to the mentee's knowledge. But if your company is like most, your experts are already fully engaged in projects or other assignments. You can't afford to give them time for coaching. Or can you?

Not only are experts interested in serving as coaches in the later years of their careers (it helps to combat burnout), it is actually cost effective for your company to have them do this. Instead of being assigned to a single project, an expert can coach several junior practitioners, each of whom is assigned to a project beyond their current capability. With the expert in a coaching role, the project is guaranteed to have the best available knowledge. The mentee gains tremendous experience by doing the hands on work under the expert's guidance and review. The expert is thus able to influence the success of several projects while accelerating the learning of several colleagues. (Note: this is also a great opportunity for retirees). You can provide a four-way win for the projects, the expert, the junior practitioners and the organization's talent development.

What if you really don't have available experts?

Social Learning

All practitioners can benefit by sharing their experiences and building on each other's' knowledge. Enabled by a social media collaboration platform such as SharePoint, a learning and performance support system uses the mental model as the organization scheme and allows practitioners to quickly find relevant past situations and easily contribute new ones. The collective knowledge grows over time and is an invaluable asset for future hires.

To illustrate the value, I'll describe a system I created for a global refining organization. The mental model in this case was a set of refining processes and equipment. Knowledge was transferred by hundreds of operators and engineers through a question and answer process. Anyone could post a question and the system delivered it to people with experience in the topic. Often none of these people had ever met each other. But several good answers were usually received in a few days from refineries all over the world. Using a simple close the loop process, the person asking the question added the solution that was actually used as well as an estimate of time and cost savings. Millions of dollars were saved each year, and new practitioners had access to a growing collection of practical knowledge to help with future situations.

Conclusion

Whether your key business metrics are revenue, cost, quality, customer satisfaction or percent of revenue from new products and services, your company needs a workforce with skills and experience to deliver the results. You can significantly increase workforce performance by accelerating competency and effectively extracting knowledge from work experience. There are practical methods that you can use to leverage your best employees' expertise as you continually grow the human capital of your organization.

References

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