

A Strategic Design Approach to Workplace Learning and Knowledge Development

Learning and knowledge management practitioners too often see their options for improving performance as consisting of two choices: Implement formal training programs or new information systems. It's time to broaden our view and see the entire workplace environment – its practices, systems, routines and resources -- as offering opportunities to implement solutions designed to improve learning and knowledge development. Here's how to make that shift.

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About Purple Line Associates



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Workshops and Consulting

Purple Line Associates offers both workshops and consulting on the topics covered in this white paper:

- Implementing a Strategic Design Process
- Building the Business Case for Learning and Knowledge Management

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Choosing the battlefield

Robert Stephens – founder of the innovative computer services company the Geek Squad – was facing a perplexing technology issue within his own organization.¹ A new online system he launched to inspire more knowledge-sharing collaboration among his 12,000 agents was generating only minimal activity.

The situation was not due to a lack of know how; his computer-savvy service agents were certainly capable of finding their way around the new technology. He suspected it was also not a lack of interest. By choosing a wiki as the backbone of the collaboration system -- the same technology used by Wikipedia, the online encyclopedia that is the published output of many thousands of contributors – Stephens intended to provide a new technology toy for his company of techies to play with. And wikis allow contributors a great deal of freedom in publishing content that matters deeply to them – a natural fit for his entrepreneurial and creative organization.

So what was going on? Why hadn't the Geek Squad wiki experiment taken off?

Stephens stumbled upon the answer one day when sharing his thoughts with another Geek Squad manager. Stephens told the manager he was very concerned about whether agents in some of the more remote offices had a strong enough connection to other offices to ensure they would experience the innovative, energetic culture that drives the organization's success. But the manager told Stephens that agents from many remote locations were in fact socializing and connecting with other agents all the time, during downtime at work – *in an internet-based multiplayer battlefield game*. More than 100 agents might be engaged simultaneously in a single game, fighting each other on a virtual battlefield, wearing headsets and using software that allowed them to talk over the internet while playing.

And during the course of battlefield taunts and game chatter, *agents were sharing technical tips, insights and news*.

“I just stood there in the hallway going, ‘Oh my God’” Stephens recalled. “I’m sitting here trying to build this shiny new playground with all these tools for collaboration and I failed to notice what the agents were already doing. While I had my head down doing this in preparation to open the wiki’s floodgates, the agents had self-

¹ Story and Robert Stephens' quotes from *Wikinomics: How Mass Collaboration Changes Everything*, by Don Tapscott and Anthony D. Williams. Penguin Books Ltd., London, U.K. 2006.

organized online in probably the most effective and efficient collaborative tool that's already out there.”

Stephens' lesson learned: Observe first, then design a solution.

“I'm deathly afraid of wasting time and energy to get people to do something they don't want to do. So next time, before I build that shiny new playground, I'm going to think about how Geek Squad agents are already organizing – it's just much more efficient that way.”

For learning and knowledge management practitioners, Stephens' insight is keen indeed. How often do we really take the time to “see” the organization as it is actually *lived* by the people who work in it? Or do we focus, instead, on the “designed organization” – the one that is made up of structures and processes we can show in PowerPoint or on a white board?

Stephens is also not alone in pointing out the necessity to “see” the organization more completely. The interest in enhancing our point-of-view is also apparent in attention to topics such as social networks, communities-of-practice, and “informal learning,” an umbrella concept which covers the multitude of ways people learn outside of formal classroom or online learning experiences.

But being able to see a more complete view of the organization is only part of the challenge. We also must see these less obvious aspects of the organization in a way that helps gain insights useful in *designing solutions*. The following three sections of this paper – Adopting a Designer's Mindset, Finding the Value Connections, and Seeing the Opportunities -- are intended to address that design challenge and explore how we can leverage some fundamental realities of workplace learning and knowledge creation: Learning is social, it is constructed in real experience, and it is influenced deeply by the organizational environment (context) in which it occurs.² We will also begin to see that a strategic design approach leads us to working on issues primarily concerned with either 1) *developing expertise* or 2) *impacting the way in which knowledge flows through or is processed by the organization*. These two objectives – developing expertise or improving knowledge flows – become the design goals of our efforts to leverage the way in which the organization operates in actual practice.

² Much of what I share in this paper is the result of research and collaboration with faculty, students and staff at Northwestern University's Learning and Organizational Change program (as both a graduate student and adjunct faculty member). I am very grateful for the opportunity to continue to work with the program's enthusiastic and innovative leadership and students.

Adopting a Designer's Mindset

To begin making a shift to a more strategic practice of learning and knowledge management, we need to think about our role in a new way. In many organizations, learning and knowledge management practitioners tend to think of their role as either “project manager” or internal “consultant.” Both mindsets bring positive attributes to our organizational role but they also create limitations.

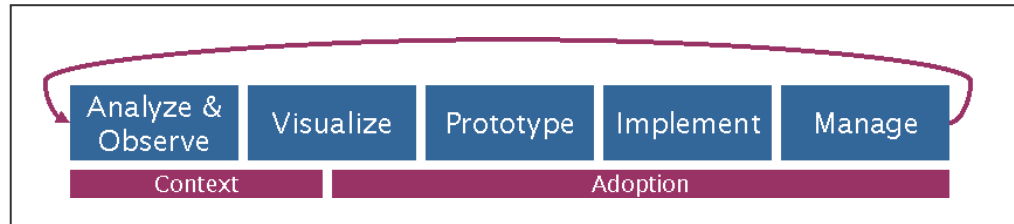
A project management mindset brings work-task discipline and thoughtful consideration of key issues such as risk management. But the project management approach also sometimes proves difficult in efforts which produce new solutions that must go through multiple iterations before they are “right.” The project management mindset also sometimes leads to treating change management as a phase or a set of tasks rather than something that is woven into every activity of the initiative.

The consulting mindset presents similar issues. On the positive side, a consulting mindset includes a holistic, systems-based approach to assessing a situation before recommending a solution. But at times the consultant role takes us only to making a recommendation – and not having to deal with the reality of implementing the changes or solution. Being right “in theory” doesn’t count as much as being right based on actual performance and results.

A third way to think about our role as learning and knowledge management practitioners is using a “designer’s mindset.” In the designer’s mindset, we take the holistic, systems-based approach to assessing organizational issues from the consultant role and combine it with the project management focus on accountability for implementing a complete solution that proves beneficial in actual practice. But a designer’s approach to learning and knowledge management is a bit more than combining the best parts of consulting and project management. It suggests a new process for developing and implementing solutions that accommodates the ambiguity of most organizational situations by also incorporating a “prototype” stage. Prototypes are useful in seeing how new solutions operate in actual

practice before attempting to put additional energy into wider organizational adoption. Figure 1 (below) provides an overview of the design process. Each phase of the design process is described in the following sections.

Figure 1 Design Process



Analyze & Observe

The Analyze and Observe phase of the design process addresses Robert Stephens' insight to "observe first, then design a solution." The inspiration for this phase, however, comes from design practices used by practitioners in occupations such as product design³ and architecture. Practitioners in these roles put a great deal of emphasis on understanding the *context of the environment* in which their designed solution must perform. By understanding context, designers are in a much better position to design solutions which are more readily adopted.

"Empathic design" methods,⁴ for example, encourage first-hand observation of potential new-product users in their "normal" environment as they perform tasks without the benefit of a new or re-designed product. The objective is to try and understand the user's mental models as they make decisions and perform tasks. After gathering insights from observations, additional data gathering may be performed to deepen understanding of specific insights. Architects employ similar techniques to combine first-hand observation and structured data analysis to better understand an existing workplace environment before they begin envisioning designs for a new workplace.

Merely watching people engage in some workplace activity, however, may not yield useful insights unless observers have particular aspects of the situation to which they are paying attention – a "trained eye." For workplace learning and knowledge issues, four key areas are critical to keep in mind during Analyze and Observe (each of these areas is

³ An excellent insider's story of innovative product design practices is told by Tom Kelley in his book "The Art of Innovation," (Currency/Doubleday, 2001) which focuses on the experience of the design firm IDEO. "Innovation begins with an eye" is one of the firm's key principles, emphasizing the importance of careful first-hand observation as part of the design process.

⁴ For more on empathic design, see the work of Dorothy Leonard and Jeffrey Rayport, "Spark Innovation Through Empathic Design," Harvard Business Review, Nov-Dec. 1997.

discussed in more detail in the sections “Finding the Value Connections” and “Seeing the Opportunities”):

- **Value.** An organization is sustainable to the extent that it delivers some unique value to its customers and/or stakeholders. Understanding what this unique value is – and the chain of activities which contribute to creating and delivering it – helps you see the organization in a way that connects activities with the organization’s purpose or key strategic goals.
- **Process.** Processes are explicit definitions of desired steps – the way things are supposed to work, resulting in delivery of the organization’s value proposition. Processes include not only activities and tasks but roles and organizational structure as well. Focusing on processes is a way of seeing the “designed organization” – the organization as it is supposed to work in theory.
- **Practice.** Practices are the *actual practices* that people use to get work done. They may or may not be aligned with processes (the desired steps). Practices may be affected by organizational culture, workplace conditions, routines or systems. Focusing on practices aids in seeing the “lived organization” – the way teams or groups of people in the workplace actually experience the organization.
- **Expertise.** Successful, “expert” performers develop a way-of-thinking (mental models) based on experience. The mental models include knowledge, concepts, beliefs, rules-of-thumb – all impacted by the day-to-day give-and-take between the individual expert and workplace colleagues, systems, tools and situations. Focusing on expertise aids in seeing how successful individuals internalize the organizational environment.

Value, Process, Practice and Expertise make up the “what” of the Analyze and Observe phase – the lenses through which to view the organization. The “how” of Analyze and Observe can include a wide variety of tools and techniques already used by learning and knowledge management professionals (e.g., process and practice mapping, expert interviews, value chain analysis, etc.).

Visualize

“Visualize” is the brainstorming stage in the design process. Once the Analyze and Observe activities have yielded insights into the workplace environment (its context) an open-minded brainstorming session should be used to identify potential solutions to the organizational issue that must be addressed. “Open-minded” in the case of learning and knowledge management design efforts means considering a wide range of both small and large initiatives, systems, routines, work aids, training programs, etc.

The objective of this stage is to define something to *prototype*. A prototype implies that the “something” may not be perfect, it will be tested on a very limited scale, and *the design team expects to learn how to improve and further develop the solution*. At this stage we do not have a solution. We have a hypothesis that we want to test in the real world.

Another key consideration in the Visualize phase: How do we *design for adoption*? In other words, how do we structure our solution so that it is more readily adopted by the organization – a “pull” effect vs. “push?” The next phase in the process – Prototyping – is one way of addressing this consideration.

Expanding the toolkit for designing solutions

One of the most important considerations in adopting a designer's mindset for learning and knowledge development solutions is to come to the Visualize phase with a large toolkit. We often unnecessarily limit ourselves by our own experience and bias from our professional roles – trainers tend to think in terms of formal programs, information management professionals think about systems and technology, etc. These areas of expertise are valuable once we have selected the component parts of a solution and must implement them. But in the Visualize phase it is most important to think broadly and creatively before defining a solution approach.

In a situation where the issue is about developing expertise, for example, one way to break out of existing solution-design habits is to imagine that you are required to design a solution that extends over three years. You also have total freedom to interject on-the-job routines, tools or resources. Let's take an example of developing the expertise and capabilities of new (novice) project managers. During the three-year period:

- *Where and when would you build- in formal training programs? And which of the many types of formal training program designs would you employ – from traditional classroom models to scenario-based simulations or action-learning programs?*
- *What systems might the novice project managers interact with between formal training programs to help “embed” new skills and expertise?*
- *Where and when might coaches come into the picture?*
- *What routines would you build into regular work practices to help novice project managers continually practice or reflect on project management issues? Ex: Specific questions that must be discussed during routine meetings.*
- *Where would peer-group collaboration come into play (conferences, virtual collaboration, etc.)? How and when would it help in the development process?*
- *What online reference resources would you make available? How might this be structured to support development of novice practitioners (vs. being a resource for expert practitioners)?*
- *What documents, presentations, videos, blogs, Wikis or other sharable pieces would you have novice project managers create? At what point in their development would they be required? What topics or issues would be considered in these pieces?*
- *What models or frameworks related to project management would you use, and what systems, practices or routines would help make these models meaningful in the real world?*

Having such a long-term and broad-based opportunity to address a expertise-development issue would be a rare occurrence. But in the real world of work practice, this is exactly how expertise develops – over a long period, in the context of the full workplace environment. By imagining how you might “design” a complete environment, you begin to get a sense of where, when and why particular options will have an impact. An actual designed solution may be more short-term focused and consist of only one or two of the elements listed above – but by imagining you had control over the entire workplace environment you begin to see how to set them more effectively into the context of the real work environment.

Prototype

Prototyping is a technique used in many design fields to put experimental versions of new products or systems into the hands of users and then learn from the experience of actual use. “Rapid prototyping” pushes the idea to an extreme -- placing high value on using the knowledge gained from many iterations of small, incremental prototypes to help design a usable and valuable product or system.

This underlying philosophy of “let’s observe our design in use” makes prototyping a natural next step to the Analyze and Observe and the Visualize phases of the design process. How you actually create and test a prototype will vary by the type of solution (i.e., a technology-based system will require a different prototyping strategy than a new team-meeting routine). But fundamentally you are trying to gain more insight into several key questions. Each of the following should be assessed using feedback of actual user experience:

- What happened that we anticipated would happen? (What did we get right?) What made it work?
- What happened that we didn’t anticipate? (What did we miss?) Do the unanticipated results require us to tweak our design to improve our chances of getting the desired results? Or do the unanticipated results lead us to some new positive insight that we should leverage?
- What insights do we gain that will help us accelerate adoption of the solution as we implement it?

Prototyping can play more than one role in the efforts to improve adoption of new solutions. In addition to providing insights about user-adoption issues, prototyping can also be used as a formal beginning of the change management process. In some cases, for example, it may be possible to engage participants in the prototyping process who later become early adopters and change agents during implementation. Individuals who are recognized as reliable experts within the organization’s social network may be good candidates for this role. Their buy-in and enthusiasm for a new solution can put energy behind the adoption process.

Implement and Manage

The implement and manage stages of the design process are areas in which traditional project management practices come into play, but with the addition of routines that encourage continuous observation and reflection on the user experience and impact of the solution. In a sense, the designer’s mindset is to always think like you are in a prototype phase.

There is one key reason for this: What counts is not how well the pieces of the solution work together, but *whether it changes what people do, and*

how they think about what they do. The best way to understand this distinction is to look at how we declare “success” when implementing new technology solutions in learning or knowledge management. Too often we declare success when the technology operates smoothly and the system’s usage is high (meaning people have adopted the system into their routine operations). This is an important measure of success – but it is not *the* most important. The more important measure of success is whether the system has helped influence how people think and act in performance of work practices that are beyond their direct interaction with the system.

We need to think in this same way whether our solution involves a new piece of technology or whether it is a new practice, routine or formal learning event. What counts are the changes that occur outside of our solution, in the workplace. Understanding those changes takes continuous observation of how our solutions work within the fabric of the workplace environment.

Finding the Value Connections

A *strategic* design process is one that is intended to explicitly support the organization’s strategy to deliver something of value to its customers or stakeholders. In commercial enterprises the success of the organization’s strategy is ultimately gauged by economic performance, which means that there is a (reasonable) expectation that any new design effort will lead to some improvement in economic value.⁵

That expectation often translates into a requirement for new learning and knowledge management initiatives to prove a positive return-on-investment (ROI) or some other measurable hard-dollar benefit. While this ROI/benefits focus has contributed a great deal of discipline to the practice of learning and knowledge management, it may also divert our attention from looking deeply at the details of an organization’s operations. We sometimes want so desperately to prove financial return that we miss important opportunities that have a positive impact on the operations but a reliable cause-and-effect relationship between the solution and hard-dollar financial gains is difficult or impossible to prove.

The truth is, *successful strategic business cases for learning and knowledge management solutions do not always need to be based on financial ROI.* An example of this is the investment that many

⁵ Not-for-profit organizations may not use exactly the same indicators of “economic success,” but the sustainability of the organization is still dependent on financial and economic factors. Membership or donation-based organizations, for example, will not survive unless stakeholders feel they gain some value by purchasing memberships or making donations.

organizations make in meeting regulatory or compliance requirements. Typically organizations will invest in new systems or practices they believe will *reduce the risk* of being out of compliance with regulatory requirements. In other words, they are basing their decision on *risk reduction* rather than *generating a financial return* (e.g., “payback” time requirement, positive discounted cash flow, etc.). Business leaders understand the benefits of reducing the organization’s risk of being out of compliance from “high” or “medium” to “low” because they understand an operational factor (risk management) that they can link to the sustainability of the organization.

Managing regulatory risk is one example of a non-financial operational factor that may be viewed by organizations as clearly connected to the success of the organization. Every organization has examples of these types of factors – items that leaders and managers fully accept as being important to the business. There was clear, compelling logic, for example, behind Robert Stephens’ thinking about the connection between making an investment in improving collaboration and gaining value for his business: Collaboration drives both social connection and knowledge exchange, which for the Geek Squad provides energy to support a very distinctive culture, which in turn helps attract bright and talented individuals and supports development of innovations that contribute to the organization’s success.

These examples lead to a set of general insights regarding how best to focus on “designed solutions” for learning and knowledge management that support the strategy of the organization:

- Proving financial ROI is *not always* a prerequisite for establishing strategic business cases involving designed solutions for learning and knowledge management.
- Clear, compelling logic that shows how to improve critical business operational factors *is always* a prerequisite for strategic business cases. *Every* valid ROI case begins with a positive direct cause-and-effect relationship between a designed solution and a critical business operational factor. *Sometimes* the logic is compelling enough to warrant investment even without proving direct financial return.
- *Strategic business cases* for learning and knowledge management are often based on producing *multiple streams of benefits* (both operational and financial) that are meaningful to the business.

Figure 2 (below) shows an example of how these insights are put to use. The desired objective in building a strategic business case for “designed solutions” is shown in the top half of Figure 2: A cause-and-effect link between a designed solution and economic value. The logic behind the linkages is as follows: The designed solution (system, process, practice, initiative, etc.) results in a positive impact on one or more key operational factors (growth, quality, productivity, speed, compliance, innovation, etc.) which in turn positively impacts revenue, expenses, margin or other key

financial measures. The financial measure impact ultimately contributes to increasing economic value.

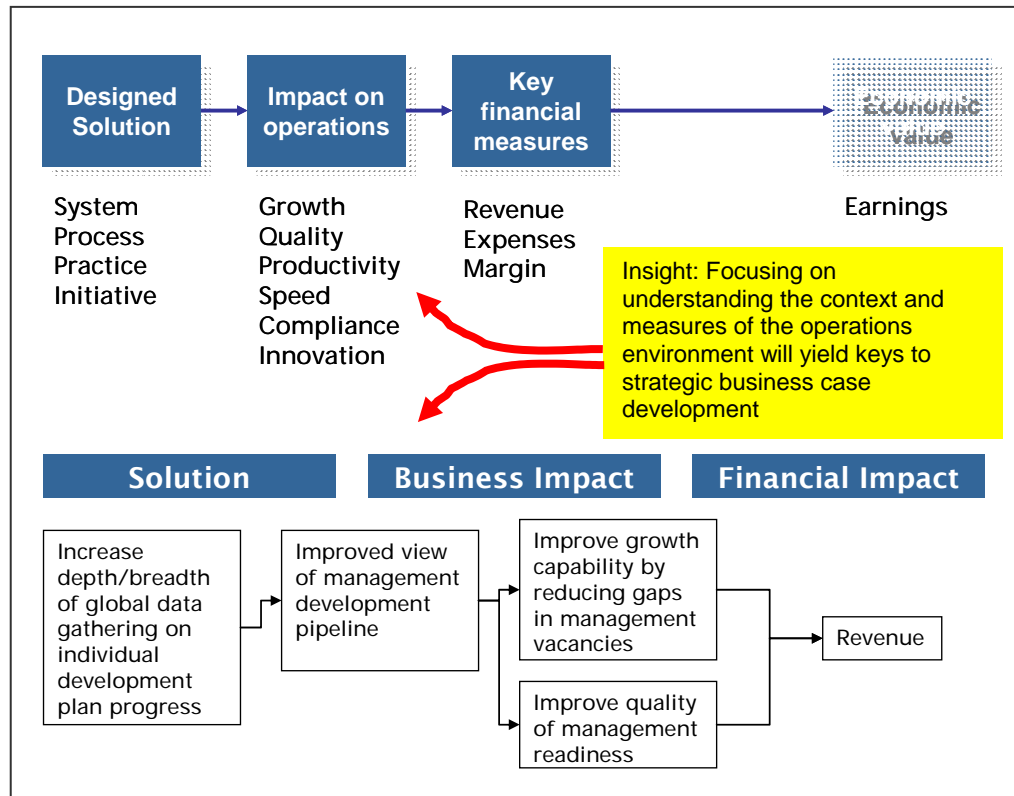


Figure 2 Strategic Business Case Value Connection

The bottom half of Figure 2 is part of the end result of an analysis that shows how focusing on understanding the issues and performance measures of the *operational environment* can lead to discovering potential designed solutions with strategic impact. In this fictional example⁶ case, the organization is a restaurant chain intent on adding restaurants in new markets as a key part of its growth strategy. Leaders and practitioners in the restaurant operations organization agree that the successful operation of a restaurant is critically dependent on the capability of the restaurant manager – a position that requires specific experience and knowledge in the organization’s particular approach to restaurant operations. For this firm, restaurant managers must be developed; they cannot be hired away from other firms and dropped into new restaurant manager positions. To grow the business, then, the firm must be able to assess (with a high degree of accuracy) the quantity and quality of new restaurant manager talent in the development pipeline. Without new managers ready to take over new restaurants, the business’ growth targets are at risk. In addition, putting new managers into place

⁶ The case is based on issues and information from work with several different organizations. Details have been altered, but the situation is consistent with actual events.

before they are ready to successfully lead a store's operations puts the firm at risk of operational problems (customer dissatisfaction, brand image erosion, employee turnover, inadequate sales performance, etc.).

The firm already has a well-organized and detailed development plan for restaurant managers. The opportunity for new designed solutions centers more on the *systems* and *practices* to rapidly and accurately assess the quantity and quality of individuals in the management development pipeline. Without a high quality system in place to make effective judgments about the management pipeline the restaurant puts its strategic revenue and growth targets at risk.

At this point in the example case we have made good progress in the Analyze and Observe phase of the design process. We understand that the link between restaurant manager capability and revenue/growth targets is very clear to the firm's leadership team (i.e., it is part of their mental model of how the business operates). We know something about the development plan process used to develop new restaurant managers. And we know some of the challenges: rapid and accurate assessment of manager readiness, accelerating the development of new managers without sacrificing management quality, etc.

In a full case example of the design process we would want to spend additional time understanding more about processes in place (what people are supposed to do); the actual practices being used to develop and assess managers (what people *really* do); and the key elements of expertise that make currently successful restaurant managers successful. But let's move ahead to the next stage in the design process – Visualize – and envision a range of potential designed solutions in the *systems* and *practices* affecting management pipeline assessment:

- An information systems solution that aggregates data regarding the development progress of potential new restaurant managers into a “dashboard” that can be monitored by local, regional and global leadership teams.
- New practices to improve the accuracy of management “readiness” assessment after completion of major developmental milestones. This might include such things as panel reviews, or assessments conducted by existing “expert” restaurant managers.
- Coaching and mentoring practices to help accelerate the development of high potential candidates.
- New communities-of-practice to encourage peer learning among managers in the development cycle and to deepen their knowledge of restaurant operations.

With this list of potential approaches we put the restaurant firm's

leadership team in a position to make an effective business decision. Each decision option puts us into the Prototype stage of the design process. The leadership team may:

- Decide to invest a small amount of resources (people, time, money) and conduct limited experiments in one or more of the approaches. Each experiment is a prototype of a potential solution. The experience can be used to gather additional information about the effectiveness of each approach – including its real costs and measurable benefits. Additional investment can then be made in the most beneficial mix of approaches based on the experiments.
- Decide that the business reasons for investing in one or more solutions is compelling enough to allocate significant resources to a full-scale project. In this case, the Prototype phase is used to gain experience in how to get the *greatest benefit* from our solution and how to design the solution so *it will be readily adopted by the target users*.

Thus far, the restaurant case is an example of how focusing on the operational environment can lead to clear, compelling logic to link learning and knowledge management solutions with critical business issues. This “soft,” logical link can be used to further develop more reliable, cause-and-effect data on measurable business benefits by prototyping.

But this case also provides an example of our final general insight about developing strategic business cases for learning and knowledge management: Successful strategic business cases are often based on producing *multiple streams of benefits* (both operational and financial) that are meaningful to the business. Note that while each of the solutions we envisioned during the Visualize stage can be effectively linked to addressing operational measures related to developing new restaurant managers, the same systems and practice solutions can be applied to any key professional or management role in the organization. The restaurant manager solution may be the most significant for the firm at this point, but the residual benefits provided by new systems and practices contribute significant additional value as well. In effect, we can use the restaurant manager solution experience to **prototype** solutions for broader application.

Seeing the Opportunities

The work of defining the value connections between potential designed solutions and key operational factors first begins in the Analyze and Observe phase of the design process, where we attempt to discover the levers we can use to improve the organization’s performance. In many cases we enter the Analyze and Observe phase with a question in mind. How do we improve our ability to meet a specific strategic goal? How do

we deal with some major organizational change? Why are we underperforming in a specific area? But the four focus areas of the Analyze and Observe phase – Value, Process, Practice and Expertise -- are also useful as a routine way-of-seeing that focuses our attention on proactive, continuous improvement. How do we *continually discover* new areas where designed solutions can add strategic benefit to the organization – vs. reacting to a performance challenge or shortfall?

In addition, the four focus areas help us remain open minded about potential solutions by requiring us to scan the organizational environment using multiple lenses. Process and Practice analysis help us see the organization at the group and team level, sometimes revealing where we can make improvements in how knowledge flows through or is processed by groups and teams. Expertise helps us see the organization at the level of successful individual practitioners – their mental models, experiences, beliefs and knowledge – and may give us insight into the improving conditions that encourage or accelerate the development of novices into more expert practitioners. Value keeps our focus on the organization's strategic goals.

It is a clear picture of Value which lays a foundation for Analyze and Observe activities to produce the best results. Learning and knowledge management teams may benefit from facilitated work sessions to clarify the unique value proposition the organization provides its customers or stakeholders (why choose us vs. another alternative?) and the links between organizational activities that are necessary to sustain that value proposition (e.g., close partnerships with key suppliers which helps an electronic products firm sustain its reputation for producing high-quality products). But the organization's unique value proposition and key activities are also often well-defined through the explicit or implicit communications of the organization's top leaders. "This is who we are; this is how we provide value to our stakeholders; and these are the critical activities we must do to accomplish that mission." At the Geek Squad, the implied message is: "We embrace our geeky personality as a core part of a unique brand image; we provide value by making an unpleasant task (computer support) easy for our clients and fun for our employees; and it is critical we leverage our collective know-how and shared experiences to maintain our competitive distinction."

With a clear image of Value in mind, the next level of analysis involves looking at Processes and Practices to understand how leaders and practitioners assess successful performance in the routine operations of their organization. In addition, it is important to capture their insights on where they believe they must make improvements, and why. This level of analysis allows you to best understand how participants at the operational level of the organization view performance, in their own language. Process or practice-mapping sessions, interviews and direct observation are all useful tools in conducting this level of analysis. The objective is to clearly understand how the business's leaders, managers and individual practitioners think about performance – and how they have established, in

effect, a mental model or theory of the business. “We need to perform well on X, which results in Y, and allows us to do Z.”

The analysis of Processes and Practices is designed to help unpack these theories-of-the-organization (and, importantly, whether or not actual practices are aligned with the theory):

- **Processes** – the way things are supposed to work. Processes are explicit definitions of desired steps and roles for key organizational activities. Focusing on processes is a way of seeing the “designed organization.”
- **Practices** – the way things work *in actual practice*. Practices may or may not be aligned with processes (the desired steps). Practices may be affected by organizational culture, workplace conditions, routines or systems. Focusing on practices aids in seeing the “lived organization.”

By focusing on understanding Value, we keep one eye on the most important elements in meeting the organization’s goal: Creating unique value for customers and/or stakeholders. By using process or practice-mapping sessions, interviews and observation to focus on Processes and Practices, we look a little deeper to see how the operational units of the business attempt to deliver their part of the effort. With Value, Process and Practice assessments in hand we prepare ourselves to answer some key questions in the Visualize (brainstorming) phase of the design process:

- Are there opportunities to improve processes or practices by changing the way knowledge flows through or is processed by the organization?
- Is there misalignment between the goals of the organization and processes or practices (the operational “theory of the business”) that we can address by changing the way knowledge flows through or is processed by the organization?
- Can we inspire more productive innovation by changing the way knowledge flows through or is processed by the organization?

To complement the group/team point-of-view we gain by analyzing Processes and Practices, we look through the lens provided by the final focus area of the Analyze and Observe phase – Expertise -- which helps us understand the situation from the point of view of an individual member of the organization. When analyzing Expertise, we look at the knowledge, mental models, beliefs and experiences of top-performing experts in the organization to better understand how they *think about what they do*. Many organizations look at skills and competencies that are primarily behavior based (know-how) but miss the opportunity to more deeply understand the mental models and decision-making thought processes that precede the behavior (know-what, know-when, and know-why and sometimes know-who).

Through actual experiences, learning and reflection, individuals who are experienced, successful performers in an organizational role have

effectively internalized a “way of thinking” that deals with the complexity of day-to-day performance. By examining how these experts think and the types of experiences which helped them develop this way-of-thinking we gain a valuable new perspective on the organization. It helps us prepare ourselves to answer additional key questions in the Visualize phase:

- What types of expertise are critical to the organization in its effort to deliver unique value? And can we create new practices, systems, routines or resources to improve how we identify and assess individuals who have this expertise or are on the path of developing it? (This is the question considered in the restaurant example)
- What combination of knowledge, real-world experiences and work-community connections provides the environment for moving individuals from novice to expert practitioner? How long does this development really take? And what types of new practices, systems, routines or resources can we add to the work environment that will enhance this development cycle?

With all four perspectives in place, we begin to see design challenges as a question of either 1) *developing expertise* or 2) *impacting the way in which knowledge flows through or is processed by the organization*. These two objectives – developing expertise or improving knowledge flows – become the design goals of our efforts to leverage the “lived organization” in the service of delivering value.

Developing a Strategic Design Mindset

For learning and knowledge management practitioners, developing a strategic design mindset is really no different a challenge than many of the organizational issues we are expected to address as part of our professional roles. So we need to look at the goal of developing a strategic design mindset as a challenge that involves both developing expertise and improving knowledge flows. And to do that, we should use the strategic design process to improve our own practices, systems, routines or resources.

Besides the obvious credibility this will give us in efforts outside of our own learning and knowledge management organizations (i.e., we use the same approach to improve our own performance as we do the performance of others), the challenge of developing and applying a new mindset to our own work practices requires us to *learn by doing* – the most effective way to construct new individual and team expertise. Some examples of how this may take shape include:

- **Implement learn-do-reflect routines.** Putting all of strategic design process concepts into practice requires a common understanding of what each of the concepts actually means in the context of our own

organization. With that common understanding in place we can begin to develop our own expertise through real-world application and practice and discussion and reflection with peer practitioners working on the same issues. We need to first understand the basic concepts (learn), experiment with putting them into practice (do), and then review with our peer practitioners what we have learned (reflect). We then we need to repeat the cycle; over time, we will develop expertise and be able to define new practices that work effectively in our own organization. By engaging in these learn-do-reflect cycles in our own organization, we will become more expert at understanding how to help other groups go through the same expertise-developing process.

- **Use models and frameworks to develop understanding.** One way of helping individuals and groups develop real meaning about new concepts and practices is to use a model or organizing framework. The design process and four focus areas – Value, Process, Practice and Expertise – is an example of an organizing framework. Its value is in developing routines where we consistently ask ourselves questions such as: “What is happening in Practice? Why are people doing things in this particular way? Is that a good thing? A problem?” The more we reflect and discuss such issues as a group, the more we develop our own shared meaning and expertise of how Practice influences our design thinking. So by *using a model* in our own efforts to develop expertise we gain more expertise in *applying models* to other situations.
- **Make small changes.** Often, the design mindset will lead to insights about solutions that may seem small but they have a big impact. Minor changes in the structure of routine meetings, for example, can over time lead to significant changes in the way people *think about what they do* ultimately *what they do*. By experimenting with these types of small changes in our own organization, we begin to understand when and how they work in other organizations.

The goal of using the design process on our own practices is to initiate change: To broaden our view beyond formal training and information systems and see the entire workplace environment -- its practices, systems, routines and resources -- as offering opportunities to design solutions which improve learning and knowledge development. We can only do this within our own team and across our own organizations if we truly learn how to leverage the fundamental truths about workplace learning: Learning is social; it is constructed in real experience; and it is influenced deeply by the organizational environment in which it occurs.