Trends and Best Practices for Improving Knowledge Transfer Across the Globe

Holly C. Baxter, Ph.D.
Strategic Knowledge Solutions, Inc.
Vandalia, OH
Holly@strategicKS.com

ABSTRACT

Traditional Organizational Assessments broadly analyze the basic health and well-being of an organization, but don't often have the ability to adapt and focus on one of the most critical pieces of organizational survival and advancement—knowledge. This study looks at a 17-step knowledge assessment process, developed and refined through large-scale assessments with a variety of Army, Air Force, world aid, and corporate entities. This knowledge assessment process was developed to help organizations obtain an indication of their health in terms of knowledge flow, knowledge creation and transfer, and ultimately knowledge management processes, strategies, and approaches by looking at how the people, processes, technology, and culture integrate as methods of informal learning. The process focuses on identifying performance gaps between what an organization is doing and what it needs to be doing given its current goals. It also highlights the gaps between what an organization currently knows and what it needs to know to achieve its goals. It does this by identifying the causes and contributing factors of identified gaps, the impact each gap has on the organization, measures of effectiveness and priorities for addressing each gap, and recommended training and education strategies for closing the gaps and improving individual and organizational performance. The end product of this knowledge assessment is a targeted knowledge strategy, which is designed to help the organization develop knowledge management, training, and education approaches and methods to close the gaps. This paper looks at applying this knowledge assessment process with the United Nations Development Programme and U.S. Army Programs and addresses the knowledge gaps and strategies for improving formal and informal learning and knowledge transfer across various countries and cultures.

ABOUT THE AUTHOR

Holly C. Baxter, Ph.D., Chief Scientist of Strategic Knowledge Solutions, has spent more than a decade specializing in Instructional Design, Evaluation Metrics, Organizational Development, and Training in both military and commercial environments. Her experience includes developing effective vignette-based training for enhancing situational awareness, designing embedded training solutions for damage control personnel, developing evaluation metrics for simulation-based training, identifying cognitive training requirements using expertise in Cognitive Task Analysis (CTA), and using knowledge management tools to capture tacit knowledge in the field and turn that knowledge into effective just-in-time vignette-based training. Dr. Baxter has published numerous articles in the field of cognitively-based training solutions, has been an invited speaker at multiple conferences and events, and has given many workshops on CTA, Vignette Development, Intuitive Decision-Making, and Leadership Development. Dr. Baxter earned a Ph.D. from Indiana University in Organizational Communication and Management with a focus on Instructional Design.

Trends and Best Practices for Improving Knowledge Transfer Across the Globe

Holly C. Baxter, Ph.D.
Strategic Knowledge Solutions, Inc.
Vandalia, OH
Holly@strategicKS.com

INTRODUCTION

Almost everyone from military units and government organizations to small and large corporations to world aid organizations are struggling to deal with the need to adapt more quickly, manage increased information, and capture and apply the expertise of skilled employees before they retire or move on. To improve the flow of knowledge and competitive learning and develop expertise more rapidly, many organizations have begun to look at improving Knowledge Management (KM) as one of an array of solutions. While many have embraced what they believe is KM, frustration continues because they did not conduct a thorough assessment to understand and analyze the entire knowledge environment to determine where the gaps and true needs were and most importantly, why those gaps exist. These "solutions" often focus on only the symptoms and overlook the root causes and types of interactions required to move knowledge effectively and achieve a positive outcome. To ensure organizations understand their knowledge-based challenges and avoid jumping into the wrong solution, a knowledge assessment process that focused on addressing root causes was needed.

This paper looks at what Knowledge Assessments are, as well as what they can be used for. It then looks at a 17-step process of how to conduct a Knowledge Assessment, the organizations studied, and the key knowledge gaps we have found across more than 20 organizations, including Fortune 50 companies, the Department of Defense (DoD), academic organizations, and international aid organizations.

KNOWLEDGE MANAGEMENT

There is a difference between information and knowledge management. Information and information management focuses on the collection, structuring, and processing of data. Reliable and timely data is important for effective KM, but it is only one part of the picture. Knowledge management may be derived from information, but it also implies an analysis of the information and data and an understanding of that analysis. It also enables the application of that understanding in future practice. This last point is critical. It is not enough for an organization to simply have knowledge; it must be able to harness and apply that knowledge to bring better results.

The challenges of information and KM have become far too complex to leave to chance. Every organization requires a dedicated team of professionals to manage its knowledge environment just as it manages its personnel, finances, logistics, libraries, or technology. KM is a deliberate approach to help organizations assess, plan, create, organize, integrate, maintain, transfer, and effectively use and reuse what they know (both tacit and explicit) to achieve a sustained competitive advantage. KM and organizational learning are two sides of the same coin, and mastering the environment and full spectrum of possible solutions is a necessity for any learning organization. For KM to be effective, organizations need to focus on managing the components of the full-spectrum knowledge environment and the interactions that make knowledge flow; not just the knowledge artifacts or content.

KM must enable flow and get the right knowledge to the right people at the right time. It provides them with the tools for making sense of that knowledge, and gives them the power to respond with insights learned from that knowledge—all at lightning speed. Since knowledge is social, effective KM requires high human-to-human interaction and helps eliminate the barriers to naturally created stovepipes and silos (Wenger, McDermott, & Snyder, 2002). It does this by networking the hierarchy of an organization, not replacing it, and by facilitating knowledge flow from its source into, through, and from one part of the organization to another. KM is a discipline that treats intellectual capital, both tacit and explicit, as a managed asset. Whereas information management systems serve to manage just the explicit, KM is more holistic. Knowledge managers strive to manage the *knowledge environment*, not simply the assets. The

knowledge environment consists of seven major components: People, Processes, Technology, Structure, Content, Organizational Culture, and Knowledge Leadership (Prevou, 2010).

As shown in Figure 1, the people, processes, and technology intersect, forming linked variables that must be in balance. Culture, content, and structure are independent variables that affect each of the linked variables. Knowledge leadership is overlaid across all the components and provides the sense of urgency, vision, drive, and resources to make KM effective. Understanding this ecosystem and the interactions that make it work is critical to conducting a knowledge assessment and providing sound recommendations. Anything short of this thorough understanding and lived experience will typically generate only content management or information technology (IT) solutions, which address only a fraction of the organization's problem.

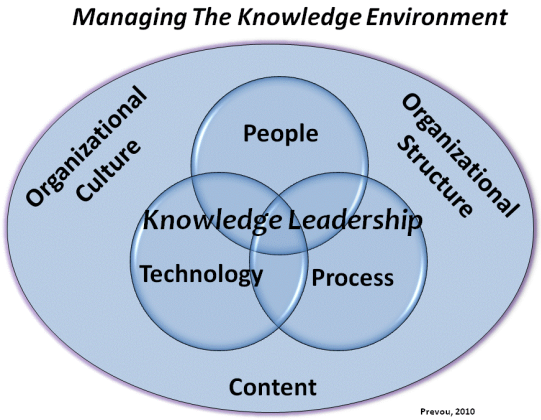

Figure 1. Components of a Knowledge Environment

The integrated knowledge environment is a system of systems that requires a balance of three types of interactions: human-to-human, human-to-system, and system-to-system. These interactions are critical to an organization's ability to function properly. The structures, people, processes, technologies, and culture in your organization make it possible for the 'flow' of data to become information and then knowledge required to make decisions and act. KM optimizes knowledge flow by enabling the interactions that produce them. Knowledge only moves through people, while information systems can only store and move the data and information. A knowledge assessment helps identify the bottlenecks to knowledge flow and provides a full spectrum of recommendations that cover each component of the knowledge environment.

THE KNOWLEDGE ASSESSMENT

Given the degree of the complexities many organizations around the globe face today, they must be better organized to respond. A number of these organizations currently suffer from a "cognitive surplus" of experience, talent, and knowledge, which often goes unleveraged or unrecognized. A knowledge assessment captures current organizational challenges and achievements and presents a new way forward to share and utilize organizational and even global expertise. It does that by identifying gaps and then building strategies for collecting, contextualizing, and distributing the enormous amount of knowledge available, positioning organizations as "knowledge organizations" in the true sense of the word.

The first step toward identifying the needs and potential benefits of becoming a "knowledge organization" is to perform a Knowledge Assessment. This identifies performance gaps between what we are doing and what we should be doing, and highlights the gap between what we know now and what we need to know to perform at the desired level. The knowledge assessment leads to a knowledge strategy, which in turn helps develop KM approaches and methods to close the gaps.

Developing a Knowledge Strategy must be tied to organizational performance objectives and work strategies with a sensitivity to cultural differences. If done correctly, it helps us understand how we can more effectively align, integrate, and balance the seven components of the knowledge environment and accomplish organizational missions. A Knowledge Assessment aligns all the components of the knowledge environment to the functionality required to support the knowledge-sharing processes. This process allows for informed decisions to be made and a KM Roadmap to be formed that will help guide an organization to improved learning and performance.

Examples of Effective KM that can be Identified Through a Knowledge Assessment

The goal of a Knowledge Assessment is to assist the organization in developing a Knowledge Strategy that aligns with the organization's business objectives and helps it learn faster and collaborate and innovate more effectively to adapt to the changing global environment. From a Knowledge Strategy, you can develop KM approaches, strategies, and architecture to improve learning, internal processes, and knowledge flow.

A Knowledge Assessment facilitates a process to identify the value related to knowledge planning,

creation, organization, integration, transfer, maintenance, and assessment to align people, processes, and technology appropriately with the organization's objectives. In some situations, the objective may be well known; more about completing a gap analysis and gathering data for the solution design. In other cases, significant effort may be involved to fully explore all the dynamics and individual interests that will play a part in the solution.

An additional benefit to the Knowledge Assessment is that it often exposes opportunities to solve other organizational problems, beyond the primary issue that drove interest in the assessment. A knowledge-based project can impact many different applications, including:

- **Process Improvement**—Centers on reducing a process's lifecycle, such as fielding a new project or responding to an international crisis more rapidly.
- **Expertise Development**—Increases the speed at which key employees are brought on-board, acculturated, and develop mastery of specific practice areas.
- **Cross-Boundary Team Development**—Centers on improving situational awareness and experience in a given context that enables higher team performance or reduces transition time.
- **Decision Making**—Centers on improving decision criteria visibility that could reduce report development and processing time and increase the speed in which decisions can be made.
- **Improved Collaboration**—Centers on improving the collaboration of geographically dispersed organizations and may speed response time and improve quality.
- **Content Publishing**—Centers on improvements in content assembly that could lead to addressing the need for output to various delivery mediums, with varying timelines and workflows and improve collaboration and final product quality.
- **Customer Relations**—Aims at producing timely updates and reports to organizational documentation and might expose additional value by providing access to this content to internal support staff and external clients.
- **Support/Help Desk**—The additional knowledge resources provided to support staff may be valuable in other areas of the organization, within the context of their business processes.

Knowledge Assessment Process

Various types of Knowledge Assessments exist and can take from as little as a few days to many months. In general, knowledge assessments look at an organization's current and future state and answer five basic questions.

1. What are we doing now?
2. What do we need to accomplish (or do) in the future?
3. What skills, knowledge, and abilities are needed to accomplish it?
4. What obstacles exist that prevent this from happening?
5. What are the knowledge approaches and solutions that will resolve/mitigate those gaps?

Conducting a full knowledge assessment in organizations is not always feasible due to time and resource constraints, so our goal was to go through a 17-step knowledge assessment process (shown in Figure 2) with a variety of organizations to determine if common trends in gaps existed across different types of organizations and across cultures (Baxter & Prevou, 2010).

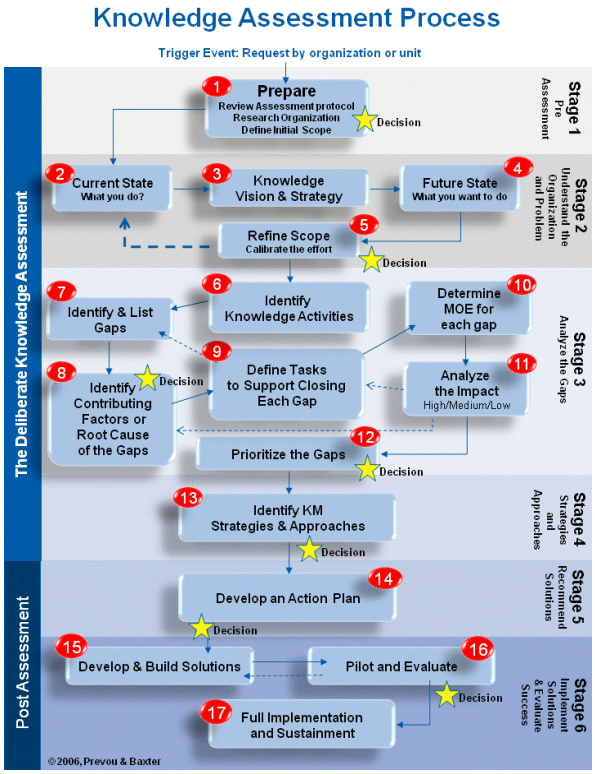

Figure 2. Knowledge Assessment Process

Stage 1 is usually conducted before an assessment. Stages 2 and 3 are conducted onsite using group briefings and interviews followed by individual and key leader interviews to develop a firm understanding of the organization, its mission, and the way it operates. Stages 4 and 5 are typically conducted with members of the assessment team and key individuals from the organization. Stage 6 is typically conducted by the organization.

Knowledge Assessment Process Method

The following stages outline the process we followed in conducting each of the 24 assessments to maintain consistency. While slight modifications were made based on organizational structure, culture, or key challenges, no steps were omitted from any assessment.

Stage 1: Pre-Assessment
Stage 1 of the Knowledge Assessment involved the necessary preparation (Step 1) to conduct an assessment. This included developing an interview guide, gathering explicit knowledge about the organization and how it shares knowledge, reviewing websites and communities of practice, and then developing an initial scope.

Stage 2: Understand the Organization and the Problem
Stage 2, which includes steps 2-5, was typically conducted through face-to-face interviews or focus groups. During this process, we wanted to understand the current state of the organization, including its vision, mission, goals, key stakeholders, competition, constraints, customers, suppliers, key products and services, turnover rates and causes, strengths, weakness, opportunities and threats, social and information networks, formal and informal feedback mechanisms, how knowledge flows in the organization, economic issues, political issues, technical issues, what defines the people and organizational culture, the organization's strategies for learning, and how the organization supports innovation. After understanding where the organization currently stands, it was important to build common ground around what knowledge vision, strategy, and terms of reference meant, and then we elicited where the organization wanted or needed to be in each of the areas. Based on the interviews and focus groups, we then refined the assessment scope to target critical points in the organization. The more an assessment was refined, the more in-depth and useful the strategies and solutions tended to be.

Stage 3: Identify and Analyze the Gaps
This stage included Steps 6-12 and was the analysis phase of the assessment process. The current state was compared to the future state, and gaps were identified. As these gaps were identified, they were sorted into key knowledge areas that typically included Knowledge Planning or Infrastructure, Knowledge Creation, Knowledge Capture, Knowledge Transfer, Knowledge Integration, Content Management, Use of Collaborative Technologies, Team Development, Staff Processes and Oversight, Expertise Development, and Integration of KM into Learning. After determining the key knowledge areas, we identified if each gap was due to people, processes, technology, content, structure, or culture, and then determined if tacit or explicit knowledge was involved. Once this was complete, the supporting tasks were addressed, as well as the root cause or factors that contributed to a given gap. At this point, measures of effectiveness and key performance indicators were identified, along with the effort necessary to close the gap and the impact closing that gap would have on the overall organization now and in the future. Based on this effort versus impact, the gaps were prioritized.

Even if 20 gaps were identified, we only focused on the top 5-6 gaps for two reasons. First, gaps in organizations are rarely clear cut and are usually heavily intertwined. As you close one gap, you are likely to impact others. Second, because these gaps are heavily connected, after solving the highest impact and effort gaps, other gaps will likely adjust based on the implemented changes.

Stages 4 and 5: Identify Strategies and Approaches and Recommend Solutions
After the gaps were analyzed and prioritized, strategies and approaches for addressing them were identified. This process included mapping these gaps to key knowledge strategies, processes (planning, creating, integrating, organizing, transferring, maintaining, and assessing), and approaches (self-service, process-based KM, Communities of Practice, Facilitated Best Practices, etc.). One size did not fit all, and not all solutions required technology. Some of the most successful solutions increased communication and collaboration based on the understanding of needed interactions. Once the approaches and solutions were identified, an action plan was prepared by the organization and implemented to guide the change. For each gap, the action plan listed the task, goal/gap addressed, measures of effectiveness/key performance indicators, action to be taken, actors, costs, timelines, and milestones. Each area addressed the entire knowledge environment of people, processes,

technology, structure, content, and behavior required to move the organizational culture in the desired direction.

Stage 6: Develop and Assess
The final stage of the assessment process involved implementing solutions. This included designing those solutions, developing prototypes, and then piloting and evaluating those changes. This stage is currently being implemented with each of the organizations studied.

Approach

In determining the key knowledge gaps across organizations, we conducted assessments with 24 organizations, including U.S. Army Commands across the globe, Fortune 50 companies, and world aid organizations, including the United Nations Development Programme and the World Bank. In conducting the assessments, the team used a wide array of data collection methods:

Literature Reviews: Key KM publications from both organizational and outside experts were reviewed prior to embarking on this mission, including each organization's Strategic Plan, and where they existed: the KM Strategy, KM Project Documents, KM Quality Assurance Processes Typology, KM Toolkits, and key knowledge products.

Interviews and Focus Groups: Over 450 structured interviews between, 2009-2011 were conducted. Focus groups covering more than 1,000 staff members were conducted during trips across the United States, as well as Germany, Geneva, Bratislava, and Kosovo. The interviews included interviewees across the organizations at all levels of hierarchy and across practice areas, communications groups, and partnership units. In addition, phone interviews were conducted with staff members of the organizations across the United States and in Afghanistan, Argentina, Bangladesh, Bosnia, Brazil, Republic of Congo, Egypt, Guatemala, Kosovo, Laos, Mauritania, Nepal, Pakistan, Panama, Saudi Arabia, Senegal, Slovakia, Somalia, South Africa, Sudan, Tajikistan, Thailand, Trinidad and Tobago, and Vietnam.

Key questions throughout the interviews focused on:

- When you think about KM (sharing, storing, organizing knowledge), what are the key challenges you face in your current position?
- When you have a question you need answered, where do you go? If you don't get the answer you need, where do you go next? Why? For example, if you are expected to provide policy advice to a national counterpart, or prepare a program document that responds to cross-cutting development challenges, where do you look?
- Where, what, and how do you make knowledge available to others? Considering your busy schedule, what motivates you to share knowledge and learn?
- In a crisis context, what tools, practices, and processes have you found useful and timely to allow you to respond to the challenges of the moment?
- In what major area do you most need more information to successfully accomplish your job (meetings, formulating project documents, etc.)?

E-discussion: In addition to interviews, where organizations allowed for it, online discussions were posted across knowledge networks in a given organization, and more than 250 detailed responses were received from different corners of the world, including the United States, Guinea, Nepal, Papua New Guinea, Dominican Republic, Liberia, Indonesia, Sudan, Afghanistan, Pakistan, and Mozambique. The questions posed on the networks were the same as the areas focused on in the face-to-face and telephone interviews.

Information Technology: The team also looked at a high-level review of current IT platforms, including SharePoint/intranets, Internet, and extranets (where they existed). In each case, we reviewed from the user's self-reported usability perspectives. We did not review or compare system functionality.

Analysis

The guiding principle in our analysis across organizations was to identify the key gaps and bottlenecks in KM processes, as well as the contributing factors and root causes of these issues. Our approach was inductive, i.e., the themes identified emerged from the data gathered specifically for this project. The inductive process does not try to fit the data into a pre-conceived framework, but creates the framework from the data. The process also provides a rich description of the KM challenges and strategies across organizations instead of individual isolated struggles. Analysis requires interpretation of specific data to general themes. We coded specifics into categories within each individual data item (interview or document) and then summarized across the data set.
The first step in the process was to read the data set to immerse the team in the findings. The team made notes of interesting ideas in the data and documented those that we could possibly convert into coding categories. The second step was to generate initial broad level

"knowledge buckets," which are preliminary themes of organization-wide gaps. The subject matter experts (SMEs) independently reviewed each other's data and rationale for each gap and then discussed the overlap and wording for each gap. The outcome of this step was an agreed-upon set of high-level groupings that served as preliminary gaps. The third step was to review the themes more exhaustively against the data set to identify areas needing refinement.

Trends and Best Practices

In the organizations we studied—whether corporate, government, military, or world aid—we saw the same gaps emerging repeatedly. Each of the organizations studied had multiple gaps that were specific to their struggles, but we saw a trend of nine gaps that emerged in every organization, regardless of size and culture. While these common gaps manifested themselves differently in each organization, they still showed a clear trend of challenges every organization seems to face. The key trends we found in every organization and unit include gaps in:

- Knowledge management infrastructure
- Collaboration tools and methodologies (use, acceptance)
- Business process oversight
- Use of email (Outlook)
- Key KM tools and SMEs (dashboards, staff rosters)
- Creating and maintaining a common operational picture (calendar tools, workflow process)
- Content management
- On-boarding of new personnel/job transition continuity
- Capture and transfer of experiential and organizational knowledge

Knowledge Management Infrastructure

Organizations struggled with the management and oversight of sharing knowledge. In some cases, the organizations were new to KM and not sure where to start. Even many of those who were familiar with KM lacked the organizational structure and staffing to support it effectively. This was often due to KM not being seen as critical to the current mission, a need for leadership emphasis, or a poor culture of collaboration. Staff often pointed to a lack of incentives to share knowledge across or outside the organization.

The best way we saw to tackle this gap was with strong KM leadership and governance, including tightly linking KM to objectives in support of organizational effectiveness**.** This can be accomplished by creating a KM infrastructure to support initiatives, reviewing and setting knowledge and information management policies, prioritizing and resourcing KM with the appropriate tools and competencies, and communicating a KM vision and modeling this behavior. An effective leader not only sets the path for change, but is an exemplar in practicing these initiatives. They are very clear about the goals, with clear milestones and learning reviews along the way. They monitor changes in underlying culture and enablers for KM to respond appropriately, and they use positive achievements to reinforce change.

Sample how to:

- Form a core Knowledge Management Team.
- Build a complete KM team infrastructure.
- Train the team. Core members should attend a KM Qualification/Certification course, which creates capacity at each level and gets each organization on the same page.
- Establish a KM Working Group. This becomes the network for implementing KM strategies and processes. The group should meet regularly, and recommendations should flow directly to a decision-making body as part of the organization's battle rhythm.
- Build the integrated KM system framework and develop a map of tools and processes. The map becomes a foundation for training, and provides requirements for the tools every soldier/leader must be capable of using to enable knowledge flow and collaboration.
- Integrate KM awareness and training into the in-processing and on-boarding programs. Introducing new workers to "how we work" during in-processing (by the installation) and on-boarding (by the sub-organization) will acculturate them to the tools, processes, and techniques used to facilitate collaboration and knowledge flow. In-processing and on-boarding can accelerate a new staff member's time to competence in that organization significantly, making them more productive in less time.
- Integrate KM awareness and training into the basic curriculum of all leader training and education. To make permanent changes, we must provide every leader with proper tools and skills to use those tools to support a culture of collaboration and create a learning organization.

Collaboration Tools and Methodologies (Use, Acceptance)

While some organizations lacked any collaboration tools or methodologies, most had very formal collaboration methods and technologies to share lessons learned. However, these methods were often underused due to a lack of awareness that they existed

or ineffective training. Where methods were effective, they were isolated "pockets of excellence," that were not known across the organization or shared.

A best practice we saw is to move to an Enterprise 2.0 system. Enterprise 2.0 refers to adopting Web 2.0 inside an organization and transitioning from formal structured documents to information dynamic in range and content, created and constantly updated by all staff with little formal validation to slow the process. This content can take the form of Communities of Practice, Web Conferencing, Knowledge Markets, Blogs, Wikis (see Figure 3), Social Tagging, Social Bookmarks, Podcasting and Vodcasting, and RSS.

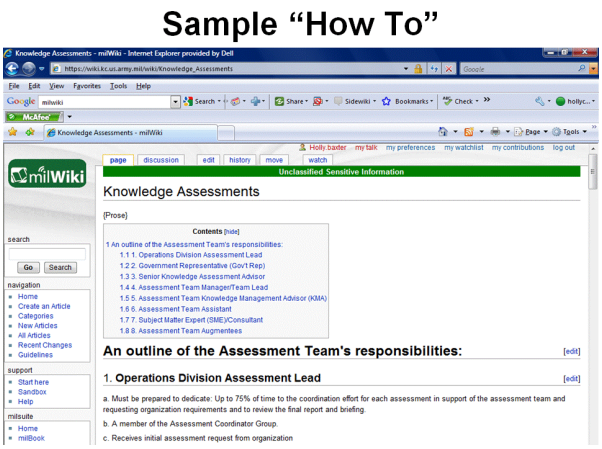

Figure 3. Sample How To

Business Process Oversight

A gap dealing with business process oversight often developed due to a need for knowledge leadership, a culture of hoarding information, having people who are too busy to share and collaborate, needing a top-down KM emphasis, or needing the proper incentives to inspire sharing or teaming effectively.

One best practice for closing this gap we saw was business process mapping, which involves mapping the steps and linkages in current business processes to simplify or make them more efficient or effective. This process helps identify where critical information and knowledge sharing opportunities exist, as well as inputs and outputs. In addition, it identifies areas of positive deviance. Basically, in every organization, there are people who find better solutions, and we need to locate them and benefit from these innovations, because change is more sustainable if generated internally v. imposed from outside. Finally, business process mapping allows you to define the most appropriate roles and responsibilities for KM and tightly integrate processes into organizational objectives, which allows you to assign and enforce process oversight.

Use of Email

Every organization was overwhelmed by email, so much so that in one case, a Director of an organization just shut it down and said they weren't using it anymore. While email in itself is an excellent knowledge sharing and communication tool, it can cause bottlenecks and gaps when used in excess for everything from meeting planning and collaboration to congratulating an employee on a new family addition.

Email rehabilitation helps organizations better manage communication and information flow by reducing over-reliance on email and introducing more effective channels for collaboration. Using simple rules such as:

- **Email:** Alerts and one-on-one brief, non time-sensitive communication.
- **Blogs:** Best for current awareness announcements and sharing involving groups.
- **Wikis:** Best for collaborative drafting.
- **Instant Messaging:** Best for brief time-sensitive communication.

For many organizations, we recommended improvements for email use such as developing 4-6 simple email rules:

- Not selecting "reply to all" when there is no need for all to be involved.
- Using a top line in the email to denote action required, keeping emails to a maximum of 10 lines, and using a collaboration forum (like SharePoint) when dealing with large documents or large groups.
- Concentrate on making emails readable within one minute.
- Implement personal email practices to improve individual productivity: Empty inbox daily. This should be a temporary holding site for unprocessed emails. Move messages out as soon as you know what to do with them. Write one topic in each email to facilitate tracking and searching for info.

Key KM Tools and Subject Matter Experts

A challenge all the organizations faced was having the correct knowledge and expertise in the unit or organization, but not knowing how or where to find that knowledge or person when there was a critical need.

A best practice is using Dashboards to pull together critical performance data into a single presentation format. These Dashboards often include Enhanced Staff Rosters, which list knowledge domains and contact details for designated specialists who have agreed to be consulted, along with interest areas, details of experience, and past projects. (Figure 4)

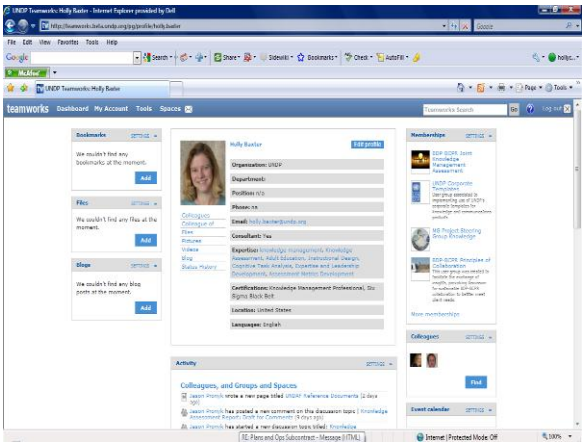

Figure 4: Enhanced Staff Roster

Creating and Maintaining a Common Operational Picture

Creating and maintaining a common operational picture in a large organization is exceedingly difficult. Not being able to maintain this leads to a duplication of efforts, gaps in training and work processes, and often confusion across the organization.

In addition to following the email rules and setting up a Dashboard, shared calendars can help create a common operating picture. Using a long-range planning calendar, such as SharePoint (the most widely used tool across all organizations studied), as a base for the entire organization can allow you to set up views for each group that can be separated from the master calendar and viewed individually. As part of this best practice, enforcing a meeting management process that includes items like meeting requirements, agenda formats, roles and responsibilities of participants, and read-ahead mandates (where to access slides, documents, etc.) helps build a shared vision and purpose.

Content Management

Challenges with content management in the organizations studied stemmed from not having a content management plan or taxonomy; having multiple layers of folder sites, web pages, calendars, or storage drives; no central repository/database; and an ineffective or lack of search capability.

The best way we saw of addressing this was through Information Architecture, which refers to designing and organizing a knowledge environment so it fits the user group's needs. This is developed by studying the routines, challenges, and needs of primary user groups; analyzing their knowledge seeking and usage habits; and redesigning the taxonomy and tagging system to improve usability and accessibility. Successful KM requires close integration among: management and information security; roles and responsibilities for knowledge and information assets and where they are stored; content management; and quality and accuracy of information assets and how they are categorized.

Some ways to accomplish this task are to:

- Identify the requirement to the organization for an approved enterprise wide search engine.
- Designate and train content management specialists. They have a deep understanding of the policies and processes needed to ensure organizational compliance of policies.
- Conduct a formal knowledge asset inventory leading to an organizational and personal site map. Once the mapping is complete, determine through a working group which platform should be used for what purpose.
- Assign responsibility to inventory and manage the content. Once assigned, then organizational understanding of the rules for deleting and archiving explicit knowledge will help them more easily find the information they need, when they need it.
- Merge or manage multiple repositories to support searching across all databases, repositories, and shared drives.
- Provide "personal content management" training to all new employees as part of on-boarding and in-processing. This ensures everyone has an understanding of the need to manage content, the established process, and repository locations and accessibility.
- Establish a pilot program with one section or unit to ensure the policies and procedures are attainable and then methodically implement across the other sections or units as they are trained and the tools put into place.

On-Boarding of New Personnel/Job Transition Continuity

The one place organizations lost knowledge more than any other was in on-boarding new personnel and those transitioning between jobs. Continuity and best practices are often lost, and lessons learned are not effectively transferred from those with the expertise to those who need it. While many organizations have key training and education programs for ongoing personnel, the new and transferred staff often fell through the cracks and missed out on these opportunities.

Knowledge continuity helps overcome this pitfall by maintaining continual access to the knowledge and information needed over time. It includes helping new staff get up to speed with planned on-boarding; how the organization deliberately builds the experience,

expertise, and knowledge of its employees in areas that are difficult to document through decision games; and how the organization ensures the transfer of critical tacit knowledge from staff who leave or retire through right-seat rides and continuity processes. On-boarding goes beyond required administrative in-processing. For example, an important part of on-boarding is touring a facility and introducing the new hire to others inside and outside the organization. On-boarding material should include a key contact roster, standard processes, and continuity processes, where possible.

In addition, off-boarding encompasses more than an administrative checklist when someone leaves. Preparing a method for job transfer, a manual, in-person, or electronic, should be a requirement for all. As part of the off-boarding process, the departing individual should have the opportunity to participate in an exit interview so tacit knowledge can be captured (including ideas for improvements).

Capture and Transfer Experiential and Organizational Knowledge

One of the biggest challenges for all organizations was that they did not have a way to formally capture tacit knowledge and experience from workers and leaders. In some cases, this was due to stovepipes and silos, but in most cases, it was due to simply not knowing how to tap into the intellectual capital of organizational members with the most expertise.

Expertise transfer is critical to organizations where key activities rely on tacit knowledge and not just documented processes or training. Some best practice tools we saw included Communities of Practice, Cognitive Task Analysis, Decision Games, Mentoring & Coaching, Peer Assist/Right Seat Ride, Competency Frameworks, and Enhanced Staff Rosters.

Two best practices in this case revolved around leadership and tacit knowledge capture. In one case, the leadership instilled a learning culture by asking at the beginning of a project: "Have we done this before? Has anyone else in our organization done this? What did we learn last time we did this?" They then made sure key meetings and stages of projects had pauses to reflect on lessons learned, document those lessons, and share them in accordance with the KM vision and strategy.

In a second best practice, the organization improved tacit knowledge capture using a very short exit interview that was passed on to the next person transitioning into the position. It asked three questions:

1. What are three things you have learned that you wish you had known when you started your job?
2. What is the biggest challenge your replacement will face? What advice would you give them?
3. What are the two initiatives/knowledge products you are most proud of? What made/makes them effective?

CONCLUSIONS

Most of KM is about applying common sense to recurring, near-universal problems and developing innovative, effective ways to overcome both individual and bureaucratic tendencies to become "stove-piped" in handling organizational knowledge. While a sound KM initiative should align the Knowledge Environment (people, processes, technology, culture, structure, and knowledge leadership) within an organization's culture, it should also contribute to the organization's continuous improvement and people. To align the organization's objectives with its knowledge, you need to assess the organization's Knowledge Environment to focus limited resources and ensure the gaps are in fact problems that should be addressed.

So how do you begin to implement changes? Once gaps are identified, changes can be accomplished through a coordinated set of initiatives encompassing cultural changes and new technologies such as some of the best practices provided here. The strategies implemented should create the human and technical infrastructure to enable staff to learn, share, connect and contextualize knowledge by enhancing collaboration and creating a cultural change with regard to the organization's approach to KM.

Developing a knowledge strategy must be tied to organizational missions and objectives and help us understand how we can more effectively integrate and balance people, processes, and technology within the organizational culture to accomplish missions. There is a growing awareness of the importance of knowledge creation, integration, organization, and transfer, in part due to the technology that has made it faster, yet more difficult. An approach based solely on implementing a software product seldom offers an optimal solution. A better approach begins with a knowledge assessment that identifies gaps and then maps people, processes, and technology to the functionality required to support the knowledge processes. Then, informed decisions can be made and a KM strategy can be developed.

Regardless of mission, location, function, or cultural difference, organizations struggled with the same basic issues. Reviewing these trends and best practices in any organization can provide a starting point for enhancing

organizational and individual learning and improving knowledge transfer across the globe.

ACKNOWLEDGEMENTS

The author would like to thank Dr. Mike Prevou for his contributions in the development of this work and his continued valuable feedback.

REFERENCES

Baxter, H.C. & Prevou, M.I. (2010, October). A method for effectively assessing knowledge in organizations. *Paper presented at the International Conference on Knowledge Management*. Pittsburgh, PA.

Dalkir , K. (2005). *Knowledge management in theory and practice*. Butterworth Heinemann.

Gorelick, C., & Tantawy-Monsou, B. (2005). For performance through learning, knowledge management is critical practice. *The Learning Organization*. Vol. 12 Iss: 2, 125 - 139

Prevou, M. (2009). *KM team infrastructure and architecture.* White paper for Leader Development and Education, Ft. Leavenworth, KS.

Prevou, M (2010). Understanding the Knowledge Environment: A Framework to Enable Knowledge Flow. *Army Communicator*, Summer 2011, Volume 36. U.S. Army Signal Center, Fort Gordon, GA: Department of the Army. http://www.signal.army.mil/ArmyCommunicator/2011/Vol36/No2/AC2011Vol36No2.aspx

Rollet, H. (2003). *Knowledge management processes and technologies.* Norwell, MA: Kluwer Academic Publishers.

Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice: a guide to managing knowledge*. Boston, MA: Harvard Business School Press.