Commonwealth of Kentucky Knowledge Management & Transfer

Personnel Cabinet

Table of Contents

OVERVIEW OF KNOWLEDGE MANAGEMENT/TRANSFER

Knowledge Management (KM) refers to practices used by organizations to find, create, and distribute knowledge for reuse, awareness, and learning across the organization. Knowledge Management programs are typically tied to organizational objectives and are intended to lead to the achievement of specific outcomes such as shared intelligence, improved performance, or higher levels of innovation.

Knowledge Transfer (an aspect of Knowledge Management) has always existed in one form or another through on-the-job discussions with peers, apprenticeship, and maintenance of agency libraries, professional training and mentoring programs. Since the late twentieth century, technology has played a vital role in Knowledge Transfer through the creation of knowledge bases, expert systems, and other knowledge repositories.

To understand knowledge management and knowledge transfer, it is helpful to examine the differences between data, information, and knowledge.

Data is discrete, objective facts. Data is the raw material for creating information. By itself, data carries no judgment, interpretation or meaning.

Information is data that is organized, patterned and/or categorized. It has been sorted, analyzed and displayed, and is communicated through various means. Information changes the way a person perceives something, thus, affecting judgment or behavior.

Knowledge is what is known. It is richer and more meaningful than information. Knowledge is gained through experience, reasoning, intuition, and learning. Because knowledge is intuitive, it is difficult to structure, can be hard to capture on machines, and is a challenge to transfer. We often speak of a "knowledgeable person," and by that we mean someone who is well informed, and thoroughly versed in a given area. We expand our knowledge when others share theirs with us. We create new knowledge when we pool our knowledge together.

The Working Council of the Federal Chief Information Officers Council in its publication "Managing Knowledge at Work: An Overview of Knowledge Management" illustrates these differences in the simplest terms:

Data	=	Unorganized Facts
Information	=	Data + Context
Knowledge	=	Information + Judgment

Tacit versus Explicit Knowledge

A key distinction made by the majority of knowledge management practitioners is the distinction between tacit and explicit knowledge. Tacit knowledge is often subconscious, internalized, and the individual may or may not be aware of what he or she knows and how he or she accomplishes particular results. At the opposite end of the spectrum is conscious or explicit knowledge - knowledge that the individual holds explicitly and consciously in mental focus, and may communicate to others. In the popular form of the distinction, tacit knowledge is what is in our heads, and explicit knowledge is what we have arranged into an organized system.

- **Tacit knowledge** is often difficult to access. People are not aware of the knowledge they possess or how valuable it may be to others. Tacit knowledge is considered more valuable because it provides context for people, places, ideas, and experiences. Effective transfer of tacit knowledge generally requires extensive personal contact and trust.

- **Explicit knowledge** is relatively easy to capture and store in databases and documents. It is shared with a high degree of accuracy. It may be either structured or unstructured:
    - **Structured** - Individual elements are organized or diagramed in a particular way for future retrieval. It includes documents, databases, and spreadsheets.

    - **Unstructured** - The information is not referenced for retrieval. Examples include e-mail messages, images, training courses, and audio and video selections.

The goal of KM is not to capture all knowledge, but rather manage the knowledge that is most important to the organization. It involves applying the collective knowledge and abilities of the entire workforce to achieve specific organizational objectives.

DEVELOPING A KNOWLEDGE MANAGEMENT/TRANSFER PLAN

Ideally, capturing and sharing critical knowledge and expertise should be occurring continuously among employees. In many cases, however, it is not and this need becomes pressing when a valued employee is preparing to retire or change positions.

Attached you will find a simple tool that can be used to capture some of that knowledge and experience before employees leave the organization. This is a tool designed for the employee to complete as they look back over their career and evaluate the impact of their departure. In addition, there are tools available for more in-depth management of knowledge and experience in your organization. Please contact an Office of Diversity, Equality & Training (ODET) consultant for more information.

Before using the attached tool, there are a few things to think about:

- Is the organization going to fill the vacant position or reassign the duties?
- Are all the duties of the position still important to the mission of the organization?
- Is there a need to update the position description?
- Will the position change, remain as is, or be eliminated once the employee leaves?

By having the employee complete the attached tool, data can be collected as to the tasks and activities that are currently being accomplished. The knowledge transfer plan allows you, along with the employee, to target the knowledge and expertise that should be shared with the remaining staff. It also allows the evaluation of the criticality of the task to the overall mission of the organization.

In addition, we have found that completing the tool provides a positive framework for the departing employee to look back over their career and document their accomplishments and worth to the organization. It also provides a mechanism for the employee to give honest feedback on the necessity of actual tasks and activities.

Please feel free to adapt and use this tool as necessary within your organization. It is provided to be a starting point for sharing knowledge and experience, allowing those who remain with the organization to continue providing quality service.

Instructions

There are three simple steps to complete the worksheet:

1. Identify critical tasks and activities.
2. Define each task and activity.
3. Develop a knowledge transfer plan.

Set aside some quiet time to work through the steps. You may find it helpful to talk to coworkers and your manager as you answer the questions. Sometimes experienced employees don't realize how much they know. Others can help uncover the pieces.

STEP 1: IDENTIFYING CRITICAL TASKS AND ACTIVITIES

There are probably some aspects of your work that only you know how to do. In this step you are developing a list of those tasks and activities. It isn't necessary to go into detail. Let the questions below stimulate your thinking:

- What are you known for? What are you the "go to" person for?
- What do only you know how to do?
- If you left your position today, what wouldn't get done because no one else knows how to do it or what to do?
- When you return from a vacation, what work is usually waiting for you because no one else knows how to do it?
- When you have to be away from work, what do you worry about (what work isn't getting done or what work isn't being done well)?
- What does your office rely on you for?

List the tasks and activities below, using as many blanks as necessary.

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____
9. ____
10. ____

Examples:

1. Customer complaints are not addressed. (Addressing customer complaints)
2. New initiatives lay on your desk until you return. (Developing new business processes)
3. Special requests are not processed. (Processing special request forms)
4. Computer glitches are not fixed. (Solving computer glitches)

STEP 2: DEFINE EACH TASK AND ACTIVITY

Complete this worksheet on **each** task or activity identified in Step 1. You will be identifying in more detail the essence of the knowledge and experience required to complete each task or activity. It is not necessary to inventory all your knowledge and experience. You are simply defining the particular task/activity in more detail. What information or experience do you have to have in order to carry out this responsibility or task? Focus especially on things only you know and that others need to learn. Consider these areas to get you started:

- Knowing key contacts (customers, universities, other state agencies, etc.)
- Having strong relationships with key customers or coworkers
- Knowing logistics or locations (training rooms, field offices, etc.)
- Knowing past history (court cases, customer requests, business decisions, etc.)
- Knowing locations of critical files or information
- Knowing how to carry out a task or responsibility

There are many other areas. Think through the steps necessary to complete the task and work to uncover the parts that are critical to your success. What do you know that others need to learn from you in order to be able to serve your customers as well as you do?

Example

Task or Activity (from step 1): **Special requests are not processed**
List the critical knowledge, experience, or skill needed for this task: **1. Knowing how to enter special requests into the computer system** **2. Knowing how to assign special requests, based on each person's experience** **3. Knowing which information to ask customers for when they make a special request** **4. Knowing the history of a customer's special requests, and being able to judge what their true need is**

CRITICAL KNOWLEDGE AND EXPERIENCE WORKSHEET

Task or Activity (from step 1):
List the critical knowledge, experience, or skill needed for this task:

Task or Activity (from step 1):
List the critical knowledge, experience, or skill needed for this task:

STEP 3: DEVELOPING A KNOWLEDGE TRANSFER PLAN

Fill in the matrix below. Start by inserting all the critical tasks and activities you identified in Step 1. Answer the questions in the chart for each area. Use the detail you developed in Step 2 to help you think about the questions.

Complete the matrix with your manager. When working closely in an area, it is sometimes hard to judge the importance and impact of the tasks on the organization. He or she will help you confirm your perception of the current importance, availability and impact on the organization.

For the tasks identified as critical, work with your manager to develop a strategy for addressing that area.

Example

Critical Tasks From Step 1 in the worksheet.	**Importance** Low-Medium-High Gauge the importance of the task identified	**Availability** Is this knowledge and expertise currently available from anyone else in our work area? Yes or No (if yes, who?)	**Impact** Low-Medium-High (If the task is important and there is no one else who possesses the knowledge, impact is high.)	**Resources** What resources (files, people, web sites, references, etc.) exist to help others learn this task?	**Strategy** How do you plan to address this knowledge gap? Who will learn it? How and when?
Special requests aren't processed	High	No. Jane knows how to enter data, but the rest only I do.	High	Jane for database. My special request files for format of info needed.	Outline step-by-step process of handling special requests. Me – 7/31/03 Creating a matrix of each person's expertise to help with assignment of special requests. Me – 7/31/03

KNOWLEDGE TRANSFER PLAN WORKSHEET

Critical Tasks From Step 1 in the worksheet.	**Importance** Low-Medium-High Gauge the importance of the task identified	**Availability** Is this knowledge and expertise currently available from anyone else in our work area? Yes or No (if yes, who?)	**Impact** Low-Medium-High (If the task is important and there is no one else who possesses the knowledge, impact is high.)	**Resources** What resources (files, people, web sites, references, etc.) exist to help others learn this task?	**Strategy** How do you plan to address this knowledge gap? Who will learn it? How and when?

OVERVIEW OF KNOWLEDGE MANAGEMENT/TRANSFER STRATEGIES

There are many ways for an organization to identify, store, and transfer knowledge. Some strategies will work better in one organization than another. Some may not be appropriate for specific types of content. The challenge is to identify and develop complementary ways to further knowledge management and transfer in an organization.

Knowledge Management A systematic approach to finding, understanding and using knowledge to achieve organizational objectives.				
Identifying & Collecting		**Storing**		**Transferring**
Knowledge Audit/Inventory Knowledge Mapping Best Practices Documenting Processes Expert Interviews	+	Document Repositories Document Management Systems Databases	+	Co-op/Internships Communities of Practice Job Aids Knowledge Fairs Learning Games After Action Reviews Mentoring On-the-Job Training Storytelling Training

Co-op/Internships: Formal arrangements are established for an experienced person to pass along knowledge and skills to a novice. In Kentucky State government, the Co-op/Intern Educational Placement Program serves as a recruiting tool for agencies. The program helps agencies meet their short-term staffing needs in critical skill areas. It also serves as a mechanism for Kentucky students to obtain practical on-the-job experience and academic credit as part of their educational experience.

Best Practices: The identification and use of processes and/or practices that result in excellent products or services. Best practices, sometimes called preferred practices, often generate ideas for improvements in other organizations or work units.

Communities of Practice: Groups of individuals who share knowledge about a common work practice over a period of time, though they are not part of a formally constituted work team. Communities of practice generally cut across traditional organizational boundaries. They enable individuals to acquire new knowledge faster. They may also be called Communities of Interest if the people share an interest in something but do not necessarily perform the work on a daily basis.

Documenting Processes: Developing a written or electronic record of a specific work process that includes the business case for the process, steps in the process, key dates, relationship to other processes that come before and after, key players and contact information, any required references and legal citations, back-up procedures, and copies of forms, software, data sets, and file names associated with the process.

Document Repositories: Collections of documents that can be viewed, retrieved, and interpreted by humans and automated software systems (e.g. statistical software packages). Document repositories add navigation and categorization services to stored information. Key word search capability is often provided to facilitate information retrieval.

Expert Interviews: Sessions where one or more people who are considered experts in a particular subject, program, policy, or process, etc. meet with others to share knowledge. Expert interviews can be used in many ways, including capturing knowledge of those scheduled to leave an organization, conducting lessons learned debriefings, and identifying job competencies.

Job Aids: These are tools that help people perform tasks accurately. They include things such as checklists, flow diagrams, reference tables, decision tree diagrams, etc. that provide specific, concrete information to the user and serve as a quick reference guide to performing a task. Job aids are not the actual tools used to perform tasks, such as computers, measuring tools, or telephones.

Knowledge Audits: Knowledge audits help an organization identify its knowledge assets, including what knowledge is needed and available. They provide information on how knowledge assets are produced and shared, and where there is a need for internal transfer of knowledge.

Knowledge Fairs: These events showcase information about an organization or a topic. They can be used internally, to provide a forum for sharing information, or externally, to educate customers or other stakeholders about important information.

Knowledge Maps and Inventories: These catalog information/knowledge available in an organization and where it is located. They point to information but do not contain it. An example is an Experts or Resource Directory that lists people with expert knowledge who can be contacted by others in need of that knowledge.

Learning Games: These structured learning activities are used to make learning fun and more effective, provide a review of material that has already been presented in order to strengthen learning, and evaluate how much learning has occurred.

After Action Reviews: These debriefings are a way to identify, analyze, and capture experiences, what worked well and what needs improvement, so others can learn from those experiences. For maximum impact, after action reviews should be done either immediately following an event or on a regular basis, with results shared quickly among those who would benefit from the knowledge gained.

Mentoring: In mentoring, an experienced, skilled person (mentor) is paired with a lesser skilled or experienced person (protégé), with the goal of developing or strengthening competencies of the protégé.

On-the-Job Training: Most organizations use some form of on-the-job training where an experienced employee teaches a new person how to perform job tasks. If this happens at random or with no consistent written materials or processes, it is called unstructured OJT. A system of structured OJT differs in that specific training processes are written; training materials and guides exist and are used consistently by all those who train; training is scheduled; records are kept of training sessions; and "trainers" are given training on how to do OJT, how to give feedback, and several other factors.

Storytelling: This involves the construction of fictional examples or the telling of real organizational stories to illustrate a point and effectively transfer knowledge. An organizational story is a detailed narrative of management actions, employee interactions, or other intra-organizational events that are communicated informally within the organization. When used well, story telling is a powerful transformational tool in organizations.

Training: Training encompasses a large variety of activities designed to facilitate learning (of knowledge, skills, and abilities or competencies) by those being trained. Methodologies can include: classroom instruction, simulations, role-plays, computer or web-based instruction, small and large group exercises, and more. It can be instructor-led or self-directed in nature.

Knowledge Management & Transfer Strategies

Co-op/Internships

Definition

Co-op/Internships are formal arrangements where a person gains practical experience or knowledge by working for a prescribed period of time under the supervision of more experienced workers.

Co-ops/Interns typically have basic skill sets or competencies, such as analytical skills, but lack the specialized competencies necessary for the job. In some situations, specialized education may be required.

Benefits

Co-op/Internships provide a structured means for passing on specific knowledge and skills required for success in a particular job or profession. Because they take place at an actual job site, they provide ready access to people who are experienced in the job and to hands-on learning opportunities. It also serves as a mechanism for Kentucky students to obtain practical on-the-job experience and academic credit as part of their educational experience.

Obstacles

Funds for the payment of student salaries must come from the agency's budget or funds provided by work-study (Non-P-1) from the educational institution involved. Work Study Programs (Non-P1) that are non-paid and not reimbursed to the state agency by the educational institution are non-authorized programs under these policies. Such programs carry similar names, such as Cooperative Education, Internships, Externships and others.

When to Use

The Co-op/Intern Educational Placement Program serves as a recruiting tool for agencies that cannot find potential employees with appropriate skills in order to fill their vacant positions. The program helps agencies meet their short-term staffing needs in critical skill areas. State agencies may use the following criteria in their selection process:

- The students' area of study and their special skills or abilities should be utilized in the co-op/intern position.
- The students' interest in working for State Government upon completion of their course of study should be considered.
- Recommendations of the campus co-op/intern coordinator.

How to Use

The student applies for co-op/intern placement following the procedures required by his or her educational institution and the hiring agency. An educational institution may initiate a request for student placement by contacting the Co-op/Intern Coordinator in the Personnel Cabinet.

The agency sends a request for student applications to the Co-op/Intern Coordinator in the Personnel Cabinet. The request should include a brief job description and the academic major required for the position.

The Personnel Cabinet will obtain qualified students for the agency's review. If an agency already has a student in mind, please send the student's application to the Co-op/Intern Coordinator in the Personnel Cabinet.

The agency interviews qualified students for the position and informs the Personnel Cabinet of its selection.

Personnel Action Form (P-1) must be accompanied by a completed Application for Employment (P-2), along with an official or advisory copy of the student's transcript.

The educational institution is required to supply proof of the academic credit received by the student to the Personnel Cabinet.

If you have any questions or problems, please contact the Personnel Cabinet's Co-op/Intern Coordinator:

REBECCA BILLINGS
PERSONNEL CABINET
OFFICE FOR PERSONNEL ADMINISTRATION
DIVISION OF STAFFING SERVICES
200 FAIR OAKS LANE, SUITE 517
FRANKFORT, KY 40601
(502) 564-6920 EXT. 4134 (502) 564-0512 (Fax)
E-mail: RebeccaS.Billings@ky.gov

Best Practices

Definition

"Best practices" are ways of doing business, processes, methods, strategies, etc. that yield superior results. They have been implemented and honed over time to a point where they are viewed as exemplary and should or could be adopted by others. A formal "benchmarking" process is often used to identify best practices. A full description of this technique is beyond the scope of this document; however, there are many books and other resources on the subject.

Benefits

Identifying and sharing best practices is an important way to incorporate the knowledge of some into the work of many. Organizational structures tend to promote "silo" thinking where particular locations, divisions, or functions focus on maximizing their own accomplishments and rewards, keeping information to themselves and thereby sub-optimizing the whole organization. The mechanisms are lacking for sharing of information and learning. Identifying and sharing best practices helps build relationships and common perspectives among people who don't work side by side.

Best practices can also spark innovative ideas and generate suggestions for improving processes, even if a practice can't be used in its entirety. The process of identifying them can also benefit employee morale. By highlighting or showcasing people's work, employees get organization-wide recognition for their work.

Obstacles

Sometimes employees are reluctant to share their methods with others. Information can be seen as a source of power and some people hoard it. A more likely reason for not sharing is reluctance to say that something is the "best way." The "not-invented-here" syndrome could negatively affect the adoption of a method created by a different workgroup. Documenting and storing descriptions of best practices can be a challenge. If storage is to be in written form, a database or other shared file system, the practice needs to be described in enough detail for all to understand. Often, written descriptions are the starting point for transfer, with employees using site visits and other forms of communication to learn. Keeping best practice information current is important. Since organizations are constantly finding ways to improve processes and products, a "best practice" could become obsolete.

When to Use

The technique of identifying and sharing best practices can be done at any time. It can be especially important when looking for ways to improve results of important or significant processes. In today's environment of tight budgets and rapid change, identifying ways to improve effectiveness and efficiency are crucial.

How to Use

There are many approaches to identifying and sharing best practices, ranging from a formal organization-wide initiative with staff assigned to researching, documenting, and creating a database to more informal ways such as talking at the water cooler (sometimes the most effective approach!).

One "in between" approach involves management identifying the results they want to improve, determining the parameters of a process that should be studied, and then chartering a team to conduct the study. A sample of people involved in the process should:

- Thoroughly review and document the current process.
- Identify organization(s) that have exemplary practices or processes that produce high results.
- Explore the "best practices."
- Generate possible ways to improve their process.
- Recommend or select changes to be implemented.
- Arrange for implementation of the changes.
- Evaluate the results of the changes.

Another approach some organizations use is to encourage employees to learn from others within the organization through annual or periodic best practices or benchmarking conferences.

Some organizations recognize teams that have been particularly successful in accomplishing their objectives. Their process and results are often showcased at internal conferences or through knowledge fairs.

Communities of Practice

Definition

A Community of Practice (COP) is a group of individuals sharing a common working practice over a period of time, though not a part of a formally constituted work team. They generally cut across traditional organizational boundaries and enable individuals to acquire new knowledge faster. COPs can be structured depending on the needs of the membership.

Benefits

Communities of practice provide a mechanism for sharing knowledge throughout one organization or across several organizations. They lead to an improved network of organizational contacts, supply opportunities for peer-group recognition, and support continuous learning, all of which reinforce knowledge transfer and contribute to better results. They are valuable for sharing tacit (implicit) knowledge.

Obstacles

To be successful, COPs require support from the organization(s). However, if management closely controls their agendas and methods of operation, they are seldom successful. This is more of an issue for communities of practice within organizations.

When to Use

Communities of practice can be used virtually anywhere within an organization: within one organizational unit or across organizational boundaries, with a small or large group of people, in one geographical location or multiple locations, etc. They can also be used to bring together people from multiple agencies, organized around a profession, shared roles, or common issues.

They create value when there is tacit information that, if shared, leads to better results for individuals and the organization. They are also valuable in situations where knowledge is being constantly gained and where sharing this knowledge is beneficial to the accomplishment of the organization's goals.

How to Use

There are different kinds of COP. Some develop best practices, some create guidelines, and others meet to share common concerns, problems, and solutions. They can connect in different ways: face-to-face, in small or large meetings, or electronically.

An organization or group of practitioners needs to decide which kind of community is best for it by determining what knowledge people need to share, how closely connected the community is, and how closely knowledge needs to be linked with people's everyday jobs. The supporting organization(s) needs to be willing to make resources available to the community. These resources include supporting employees' ability to participate at COP events as well as providing logistical and other support. Public and private entities that have created communities of practice say they work best when they set their own agenda and focus on developing members' capabilities. Management should not dictate. Smaller, more informal COPs will likely have fewer constrictions and less need for support.

Following are guidelines to consider in forming a COP:

A. Determine the community's purpose.

Link the community's purpose to the profession or organization's goals and objectives. Communities can be formed as:

1. Helping communities that provide a forum for members to help each other solve everyday work problems.
2. Best practice communities to develop and disseminate best practices, guidelines, and procedures for member use.
3. Knowledge stewarding communities to organize, manage, and steward a body of knowledge from which community members can draw.
4. Innovation communities for creating breakthrough ideas, knowledge, and practices.

B. Clarify roles and responsibilities.

Roles can include the following, especially for larger, more formal COPs:

1. Functional Sponsors: sponsors need to believe in the value of knowledge sharing. They encourage community growth and commitment of agency resources, act as champion for the community within the organization, and work with community leaders to resolve issues.
2. Core Group: a subset of the community, consisting of knowledgeable and experienced community members (subject matter experts) to assist with start-up of the group and to provide ongoing organizational support.
3. Community Leaders: active members of the community who help to focus the community, plan and schedule meetings and events, represent the community within the organization, manage day-to-day activities, etc.
4. Members: membership should be voluntary. Members will continue to be actively engaged to the extent the community meets their needs, but the expectation must be set that members participate in community discussions, activities, and work.

5. Facilitator to guide the community's process: facilitators provide process expertise, assist with the use of process tools, and help to create and maintain a collaborative environment.
6. Logistics Coordinator: coordinates calendars, schedules meetings and events, coordinates facilities, and arranges for equipment.

Other roles to consider include functional support staff and a project historian. Functional support staffs help to arrange for databases to store and share community knowledge and establish mechanisms for on-line sharing of information through such tools as chat rooms or discussion lists. The project historian documents project decisions and events for reuse by the agency.

C. Identify community members.

Membership is voluntary but it is recommended that individuals who could learn from each other and have a stake in the community's success be identified and cultivated. Employees, who are seen as experts or as trusted information sources, add value to the community and efforts should be made to recruit them.

D. Develop mechanisms for communication and collaboration.

There can be a combination of face-to-face meetings and events, instant messaging or chat rooms, shared databases, videoconferencing, etc.

E. Hold an initial community workshop to engage member interest and stimulate continued involvement.

At this meeting, the community's purpose should be clarified as follows:

- Work should begin on building member relationships.
- Ground rules should be decided and roles explained.
- Methods for creating, capturing, and sharing knowledge should be discussed.
- Consensus should be reached on the highest priority knowledge needs.

F. Check community progress to identify and resolve any barriers that impede the community's success.

This is often a function of the community leader and core group.

Resources

NAVSEA Community of Practice Practitioner's Guide, U.S. Department of the Navy, Version 1.0a, May 2001. *NAVSEA Community of Practice Practitioner's Guide*, U.S. Department of the Navy, Version 1.0a, May 2001

Wenger, Etienne C, and William M. Snyder, "Communities of Practice: The Organizational Frontier," *Harvard Business Review*, January-February 2000, p. 139-145.

Expert Interviews

Definition

Expert interviews are sessions where one or more people who are considered experts in a particular subject, program, process, policy, etc., meet with others to share their knowledge. The format of the sessions can range from an informal one-on-one meeting to a larger group session with a panel of experts. Sessions can be audio or videotaped or even transcribed if the subject is highly technical. The experts can come from within an organization or from the outside.

Benefits

Expert interviews are a way of making tacit knowledge more explicit. A person can describe not only what was done but why, providing context and explaining the judgment behind the action. Interviews are often easier for the experts than having them write down all the details and nuances. Learners can ask questions and probe more deeply to ensure understanding.

Obstacles

Making time for these sessions is probably the biggest challenge for both the experts and the learners. If the session is more formal with a large group of learners, some may be intimidated and need coaching.

When to Use

Expert interviews can be used in many situations. The best place to begin is with people who have unique knowledge developed over a period of time. The next step might be to identify mission critical processes or programs where only one or two staff has a high level of technical knowledge.

How to Use

This process is probably most effective when someone facilitates the experience, setting the stage with participants, facilitating the exchange of any information prior to the interview, and handling scheduling or other logistics.

Identify the people and knowledge you want to start with, both the experts and the learners. Discuss with the experts the reasons for the interviews, who will be involved, and what you would like to focus on. If the learner needs to prepare for the session, the expert can identify how to do this and what resource materials would be helpful. It is also essential to ask the learners what they think they would like to know from the experts. If they have specific questions, provide these to the expert in advance so he or she can be prepared.

If the session is more formal, with larger numbers of experts and learners, a facilitator can help keep the session focused and on time. If the interview is a one-on-one meeting, a facilitator is probably not needed.

If audio or videotaping, arrangements should be made in advance and equipment tested to ensure both experts and learners can be heard on tape.

Job Aids

Definition

A job aid can take many forms, but basically it is a document that has information or instruction on how to perform a task. It guides the user to do the task correctly and is used while performing the task, when the person needs to know the procedure.

A job aid can be as simple as a sticker on an answering machine that describes how to access messages. Types of job aids include:

- Step-by-step narratives or worksheets sequencing a process.
- Checklists, which might show items to be considered when planning or evaluating.
- Flow charts, leading the user through a process and assisting the user to make decisions and complete tasks based on a set of conditions.
- Reference resources, such as a parts catalog or telephone listing.

Benefits

Job aids are usually inexpensive to create and easy to revise. Using job aids can eliminate the need for employees to memorize tedious or complex processes and procedures. When a job aid is easy to access, it can help increase productivity and reduce error rates.

Obstacles

Job aids need to be written clearly and concisely, with nothing left to interpretation. They also need to be updated and kept current. Finding the time to create job aids can be a challenge; however, creation of good job aids produces benefits over the long term.

How to Use

Consult with knowledgeable users to identify what job aids to develop. Create job aids that include only the steps or information required by the user. Keep the information and language simple, using short words and sentences. Don't include background information or other information extraneous to actual performance of the task; put that in another location. Use graphics or drawings, when appropriate, to more clearly demonstrate detail.

Use bold or italicized text to highlight important points. Use colors to code different procedures or parts of a process. Make sure the job aid can be easily accessed and is sturdy. A laminated wall chart hung near where a task is performed can be consulted more quickly than a piece of paper stored in a file.

When to Use

Job aids are most appropriate for tasks that an employee does not perform frequently, or for complex tasks. Tasks with many steps that are difficult to remember, or tasks that, if not performed correctly cause high costs, can benefit from having readily accessible job aids. Also, if a task changes frequently, a job aid would save time and reduce the chance for errors.

Job aids can be a good supplement to classroom training. Users can learn tasks in a classroom but will likely need something to rely on when on the job.

Resources

Russell, Susan, "Create Effective Job Aids," *American Society for Training & Development Info-Line*, Issue 9711, November 1997.

Willmore, Joe, "Job Aids Basics," *American Society for Training & Development Training Basics Series*, 2006.

Knowledge Fairs

Definition

A knowledge fair is an event designed to showcase information about an organization or a topic. It can be organized in many ways using speakers, demonstrations, or more commonly, booths displaying information of interest to the attendees.

Benefits

A large amount of information can be made available and attendees can focus specifically on what they are interested in learning. Attendees can interact directly with the presenters, getting immediate answers to their specific questions. They also can establish contacts for further exploration of topics if needed.

Attendees often network with one another and booth developers' often strengthen their teamwork. Knowledge fairs also provide opportunities to draw attention to best practices and recognize employee and team achievements.

Obstacles

Depending on the scope and size of the event, it can require a large amount of staff time for creating booths, putting information together to display, and for organization and logistics. The costs for space, materials, and resources can be high. The potential exists for participants to become overwhelmed with information.

When to Use

Consider a knowledge fair when there is a lot of information to share with a lot of people and participants need a broader perspective, as well as an opportunity to interact on a one-on-one basis on specific topics. A knowledge fair is an alternative to traditional presentations when more interactive experiences are desirable.

Learning Games

Definition

A game is a type of structured learning activity used to make learning fun. It can provide a review of material that has been presented to strengthen the learning or evaluate how much learning has occurred. Games can also be used to:

- Help people prepare for learning by testing current levels of knowledge.
- Apply a newly learned skill.
- Learn as they play the game.
- Practice what has been presented to reinforce the learning.

Benefits

Games improve knowledge transfer by:

- Increasing participation among all involved.
- Improving the learning process by creating an environment where people's creativity and intelligence are engaged.
- De-stressing learning by making it fun.
- Addressing the different ways in which people best learn.
- Adding variety to a training program, which helps to keep people actively involved.

Obstacles

- When games are used as an end in themselves and not a means towards an end, they waste time and can hamper learning.
- Using too many games can destroy learning effectiveness.

When to Use

Games are usually used in conjunction with other learning methodologies, such as presentations and discussions. Using learning games depends on the learning you are trying to convey and whether games will help you meet your learning objectives.

Games used at the beginning of a program can measure existing knowledge and build immediate interest in the training material.

Games used during a program can help people discover the learning themselves (strengthens recall and commitment), practice using new knowledge or skills, or reinforce initial learning.

Games used near the end of a program can test knowledge gained and people's ability to apply it in their work settings.

How to Use

For games to be effective, they must:

1. Be related to the workplace by providing knowledge, reinforcing attitudes, and initiating action that is important to job success.
2. Teach people how to think, access information, react, understand, and create value for themselves and their organizations.
3. Be enjoyable and engaging without being overly simplistic or silly.
4. Allow for collaboration between learners.
5. Be challenging yet attainable.
6. Permit time for reflection, feedback, dialog, and integration. In other words, games should be debriefed.

Examples of games:

- Quizzes
- Scavenger hunts
- Quiz show games, including those modeled on television game shows such as Jeopardy or Family Feud
- "Name that" games
- Sports-related games
- 20 questions

Resources

Meier, Dave, *The Accelerated Learning Handbook: A Creative Guide to Designing and Delivering Faster, More Effective Training Programs*, McGraw-Hill, New York, 2000.

Scannell, E. E. & Newstrom, J. W., *The Complete Games Trainers Play*, McGraw-Hill, 1995.

After Action Reviews

Definition

An After Action Review (AAR) is a discussion of a project or an activity that allows individuals involved to better learn what was done right and what could be done better the next time.

Benefits

AARs identify and capture the things that went well and the things that could be improved so that team or work group members are aware of and can use the broader team/group's learning in their future projects or work activities. Results can also be shared with future teams or other work groups so they can learn from the experiences of others. AARs are excellent for making tacit knowledge explicit during the life of a project or activity. AARs are a useful tool for developing employees by providing constructive, directly actionable feedback in a non-threatening way. They give employees an opportunity to share their views and ideas.

Obstacles

Mutual trust must be obtained so that people will speak freely. The climate must be one of trust, openness and commitment to learning. AARs are not critiques and should not be treated or interpreted as a performance evaluation.

When to Use

The sessions should be done as soon as possible after the completion of the project or activities. They could also be done at any strategic point during a project. AARs simply need to have a beginning and an end, an identifiable purpose and some basis on which actions can be assessed.

How to Use

There are three types of AARs. Although the fundamentals are similar and depending upon the event, an AAR can be Formal, Informal or Personal. All involve the exchange of observations and ideas. Both Formal and Informal AARs should be appropriately documented so lessons learned may be shared across functional and geographic boundaries, and so that implementation of improvements can be measured.

- **Formal AAR.** A formal AAR is more structured, requires planning and takes longer to conduct. The formal AAR usually occurs immediately or soon after an event is completed. It may also occur while the event is in-progress. A neutral third party should facilitate a formal AAR.

- **Informal AAR.** Informal AARs are less structured, require much less preparation and planning and can be conducted anywhere, anytime, for any event, by anyone. Examples: following a meeting or conference call; or as part of a safety briefing. Managers or other interested parties may facilitate their own informal AARs.

The amount of planning and preparation required for an AAR will vary based on the type of AAR conducted; however, the process for both informal and formal AARs has four steps:

Planning:

- Schedule the AAR
- Select a facilitator
- Notify participants
- Select AAR site
- Assemble AAR materials
- Establish the AAR agenda

Preparation:

- Review the expected outcomes for the project or event
- Identify key processes
- Prepare the AAR site
- Rehearse as required

Conduct:

- Seek maximum participation
- Maintain focus on AAR objectives
- Review key points learned
- Record the AAR

Follow up:

- Distribute the record of the AAR to all participants
- Publish lessons learned in an easily accessible location
- Prioritize actions
- Develop action plan to fix the problem (revise procedures; develop a new process, etc.)

- **Personal AARs** are a simple matter of personal reflection. For example, take a few minutes to reflect on something you did yesterday such as a client consultation, dealing with a complaint or making a specific telephone call. Ask yourself the four AAR questions below. What does that tell you about what you could do differently tomorrow?
    - What did I set out to do?
    - What did I actually do?
    - What did I do well?
    - What can I improve?

An AAR is both an art and science. What makes AARs so powerful is that they can be applied across a wide spectrum of events from two individuals conducting a 5-minute AAR at the end of a short meeting to a longer AAR held by a team at the end of a large project. Individuals involved may absorb lessons learned on the spot and they can be documented in format that can be shared with a wider audience. A properly conducted AAR can also have a powerful influence on the climate of the organization. It is a part of the communication process that educates and motivates people and focuses them on organizational priorities to improve procedures across the organization.

Resources

HQDA Training Circular 25-20, A Leader's Guide to After-Action Reviews

Rock Island District, U.S. Army Corps of Engineers; Fiscal Year 2003 Annual Report

Introduction to After Action Reviews, David Gurteen, 2000.

Mentoring

Definition

Mentoring is a process by which the mentor and protégé work together to discover and develop the protégé's knowledge, skills, and abilities, usually in a particular area. The mentor acts as a teacher, coach and advisor, offering knowledge, wisdom, insight, or perspective that is especially useful to the protégé's personal and professional development.

In addition to formal mentoring programs, mentoring also occurs in organizations on an informal basis – through a supervisor's daily contact with staff; through interactions with peers; and, through observation of someone who has succeeded in an area where we wish to excel. In some instances, we are the mentor, helping to guide others, and in some we are the protégé, learning from those around us. So, in addition to formal mentoring programs, there are ample opportunities in the workplace to mentor and be mentored on an informal basis.

Benefits

The organizational benefits of mentoring extend to the protégé, the mentor, and the organization itself.

The benefits to the **protégé** are numerous: mentoring contributes to a protégé's personal growth, professional maturity, career development, and leadership/managerial skills.

The benefits to the **mentor** are just as significant. Being a mentor can contribute to the mentor's own personal and professional growth. As the mentor coaches and guides the protégé, he or she stays focused on the skills, characteristics, and styles that are valued by the organization and needed to succeed. Being a mentor also identifies you as someone of professional distinction who can serve as an example and role model for others. A mentor can also learn from the protégés knowledge and questions.

How to Use

Mentor Responsibilities:

- Serve as guide and facilitator of growth

    - Share critical knowledge and experience
    - Set expectations for success
    - Offer wise counsel
    - Provide information and resources

    - Identify role requirements, organizational imperatives, professional demands
    - Correct mistakes, demonstrate techniques
    - Assist in mapping career plan

- Provide challenge and validation

    - Build self-confidence, self-esteem, strengthen motivation
    - Listen to personal and professional challenges
    - Offer guidance, give feedback and cheer accomplishments
    - Discuss and facilitate opportunities for new experiences and skill building

Tasks associated with the mentoring relationship

- Meet with primary protégé to discuss progress
- Meet with other mentors discussing all protégés progress

Protégés Responsibilities

The mentoring relationship requires commitment and shared responsibility for the person being mentored also. The partner should discuss mutual roles and responsibilities at the beginning of the relationship and review them periodically as necessary.

- Establish and clearly define personal employment goals
- Take and follow through on directions given
- Accept and appreciate mentoring assistance
- Listen and learn – experiences shared
- Express appreciation
- Be assertive – ask good questions
- Ask for help/advice when needed
- Share credit for a job well done with other team members
- Respect the mentor’s time and agency responsibilities
- Effort and hard work – strive for excellence
- Take the initiative
- Commitment
- Critically self-evaluate
- Disclose frustrations and concerns
- Honesty
- Help others

Mentoring is an effective planning strategy that benefits the organization in numerous ways. Mentoring programs can be valuable tools in recruitment, retention, knowledge transfer, and workforce development. Mentoring can also contribute to the promotion of diversity in an organization. The Office of Diversity, Equality & Training (ODET) is available to assist agencies in developing mentoring programs.

In summary, mentoring programs offer a relatively low-cost opportunity to serve the needs of the protégé, the mentor, and the organization as a whole. Many studies have supported the benefits of mentoring programs.

Resources

Anonymous, "How to be an Effective Mentor," For Achievers Only, June 1998, p. 8-9.

Barbian, Jeff. "The Road Best Traveled," Training, May 2002, p. 38 - 42.

Bell, Chip R. *Managers as Mentors: Building Partnerships for Learning*. San Francisco: Berrett-Koehler Publishers, Inc., 1998.

Daugherty, Duane. "Wanted: A Mentor to Advance Your Career," Supervisory Management, January 1995, p. 4-5.

Kaye, Beverly, and Jacobson, Betsy. "Reframing Mentoring," Training & Development, August 1996, p. 44-47.

Kizilos, Peter. "Take My Mentor, Please!," Training, April 1990, p. 49-54.

"Mentoring: Facilitator's Guide and Participant's Workbook," developed by Brainstorm Dynamics, Inc.

Murray, Margo. *Beyond the Myths and Magic of Mentoring: How to Facilitate an Effective Mentoring Process*, San Francisco: Jossey-Bass Inc., 2001.

Peters, Helen. "Peer Coaching for Executives," Training & Development, March 1996, p. 30-41.

Shea, Gordon F. *Mentoring*, Menlo Park, CA: Crisp Publications, Inc., 2002.

The Public Management Institute (PMI) Guide Part 3 - Mentor Guide

On-the-Job Training (OJT)

Definition

On-the-job training is any kind of instruction that takes place at the actual job site and involves learning tasks, skills, or procedures in a hands-on manner. It can be informal, such as when a person asks a co-worker to show how to perform a task, or part of a more formal structured OJT system. If part of a structured system, there are usually prescribed procedures for training that specify the tasks and skills to be learned and that sequence the activities to build on knowledge already acquired. There are also administrative processes requiring both trainer (sometimes called a coach) and trainee to certify that a particular task or skill has been mastered. Structured OJT is usually more effective than informal; however, informal can also be valuable.

Benefits

On-the-job training can be very effective because someone skilled in performing the tasks does the training (the coach). With training done on the actual job site, it may not reduce productivity as much as taking a person off site to a classroom setting.

The cost is usually the coach's and employee's time. If a more structured approach is being taken, there are costs associated with training coaches and developing checklists and other materials. However, those costs can be amortized over time and over the number of trainees who use them.

Obstacles

Sometimes informal OJT can be a problem if the training objectives are not clearly stated and understood. If the training is presented in an off-the-cuff manner, it might not be taken seriously enough. Also if the person doing the training is not adequately prepared, the training could be confusing and the time wasted.

When to Use

Consider the following when deciding whether to use structured OJT:

- When equipment and/or materials needed to perform the job are not replicable in a classroom environment.
- When instruction needs to take place in small chunks so that taking the person away from the job site is not an efficient use of time.
- When the number of people needing instruction is too small to efficiently organize a classroom session.
- When showing someone how to do something using real work is the most effective way of teaching.

How to Use

One-on-one training should not be presented in a vacuum, but as part of an overall training program that might include some classroom instruction, job aids (e.g., check lists –See Job Aids), manuals, and demonstrations.

A. Preparation

- ☐ Analyze the job to figure out the best way to teach.
- ☐ Make a list of the tasks and associated knowledge and skills.
- ☐ Break the job tasks into steps and note the key factors that relate to each step.

B. Present the process

- ☐ Put the employee at ease.
- ☐ Find out what the employee already knows about the job.
- ☐ Tell the employee the importance of the job or task and how it fits into the larger picture of what the employee does.
- ☐ Show the employee how to perform the task and describe what you are doing.
- ☐ Stress the key points and use appropriate job aids.
- ☐ Completely instruct one point at a time, at a rate slow enough for the employee to understand.

C. Test the performance

- ☐ Have the employee perform the job while you observe.
- ☐ Have the employee show you how he or she does each step of the job and describe what is being done.
- ☐ Ask questions and offer advice.
- ☐ Continue until you are satisfied that the employee knows the job or task(s).

D. Follow up

- ☐ Tell the employee who to go to for help.
- ☐ Check on the employee as often as you feel necessary.
- ☐ Encourage questions.
- ☐ Have employee perform independently with normal supervision.

Resources

Levine, Charles I., "On-the-Job Training," American Society of Training and Development Info-line, Issue #9708, August 1997.

Storytelling

Definition

Storytelling uses anecdotal examples to illustrate a point and effectively transfer knowledge. There are two types:

- Organizational stories (business anecdotes) are narratives of management or employee actions, employee interactions, or other intra-organizational events that are communicated within the organization, either formally or informally.
- Future scenarios create a future vision for the enterprise that describes how life will be different once a particular initiative, change, etc. is fully implemented. They provide a qualitative way of describing the value of the initiative even before it starts.

Benefits

- Stories capture context, which gives them meaning and makes them powerful.
- We are use to stories. They are natural, easy, entertaining, and energizing.
- Stories help us make sense of things. They can help us understand complexity and assist us in seeing our organizations and ourselves in a different light.
- Stories are easy to remember. People will remember a story more easily than a recitation of facts.
- Stories are non-adversarial and non-hierarchical.
- Stories engage our feelings and our minds and are, therefore, more powerful than using logic alone. They complement abstract analysis.
- Stories help listeners see similarities with their own backgrounds, contexts, fields of experience, etc., and, therefore, help them to see the relevancy of their own situations.
- Stories can be a powerful transformational tool. Stories of transformation were coined "springboard stories" by Stephen Denning.

Obstacles

Stories are only as good as the underlying idea being conveyed. Since stories are usually orally presented, the person telling the story must have good presentation skills.

When to Use

Stories are seldom used alone, but rather they are combined with other approaches such as quantitative analysis, best practices, knowledge audits, etc. They impart meaning and context to ideas, facts, and other kinds of knowledge derived from other knowledge management tools.

Stories can be used to support decision making, aid communications, engage buy-in, or market an idea or approach. If being used to illustrate the value of a way of thinking, or explaining an idea, they are best used at the outset, to engage the listener and generate buy-in.

How to Use

In using storytelling, the message, plot, and characters must be considered. Determine what underlying message is to be conveyed (examples: importance of organizational goals, impact on an individual of a change effort, end-benefits associated with a change effort, how a process works, and so on). How does the story illustrate the underlying message (plot)? Who was involved in the story (characters)?

Think about the audience for the story. To whom is the story aimed? What will each audience listening to the story do with the story's message? What message will be told to each audience? How do we tell each desired story?

Four different structures for using stories have been developed (from *The Springboard*, by Stephen Denning):

- Open with the springboard story, and then draw out its implications.
- Tell a succession of stories. The telling of multiple stories can help enhance the chances that the audience will co-create the follow-up. Two examples: You want to describe the benefits of a proposed change effort. Tell a story that only partly serves your purpose, and then extrapolate with an anecdote (e.g., a future scenario) that describes how the story will play out when the change effort is fully in place. Or, tell a series of related stories that, taken together, illustrate various ways in which the change effort is leading to payoffs for colleagues.
- Accentuate the problem. Start with describing the nature of a problem, tell the story, and draw out the implications.
- Simply tell the story. This is useful when time is very limited and you want to plant a seed.

The story should:

- Be relatively brief and have only enough detail for the audience to understand it. Too much detail and the listener gets caught up in the explicit story and not its message.
- Be intelligible to a specific audience so it hooks them. It must be relevant to them.
- Be inherently interesting, maybe because the problem presented is difficult, the "old" way of resolving the problem won't work, there is tension between characters in the story, there are unexpected events, or an element of strangeness exists.

- Embody the idea you are trying to convey and provide an easy mental leap from the "facts" of the story to its underlying message.
- Have a positive ending, to avoid people being caught up in a negative, skeptical frame of mind.
- Have an implicit change message, especially if the audience is skeptical or resistant, since the audience can then discover the change message on their own and, therefore, make it their own idea.
- Feature a protagonist with which the audience can identify.
- Deal with a specific individual or organization.
- Have a protagonist who is typical of the organization and its main business.

True stories are generally more powerful than invented stories, and can serve as jumping off points for future scenario stories. Stories should be tested on individuals or small groups before being tried on large groups or in high-risk settings.

The stories must be simple, brief, and concise. They should represent the perspective of one or two people in a situation typical of the organization's business, so that the explicit story is familiar to the audience. Similarly, the story should be plausible; it must ring true for the listener. It needs to be alive and exciting, not vague and abstract. By containing a strange or incongruous aspect, the listener can be helped to visualize a new way of thinking or behaving. Stories, therefore, should be used to help listeners extrapolate from the narrative to their own situations.

Finally, storytellers must believe in the story (own it) and tell it with conviction. Otherwise, the audience will not accept it.

Resources

Denning, Stephen, *The Springboard: How Storytelling Ignites Action in Knowledge-Era Organizations*, Butterworth-Heinemann, Woburn, MA, 2001.

Poage, James L., "Designing Performance Measures to Tell a Story: Applying Knowledge Management Principles," presented to the Federal CIO Council, Knowledge Management Working Group, November 1, 2000.

Training

Definition

Training encompasses a large variety of activities designed to facilitate learning (of knowledge, skills, and abilities or competencies) by those being trained. Methodologies can include: classroom instruction, simulations, role-plays, computer or web-based instruction, small and large group exercises, and more. It can be instructor-led or self-directed in nature.

Benefits

Training provides the ability to address multiple participants at one time in a structured environment. Training can provide the transmission of consistent information allowing employees to come away with the same skills/knowledge. Training may be conducted in a self-paced environment or through distance learning. (If instructor-led, participants may benefit through other attendees experiences or expertise.)

Obstacles

Several obstacles may include time spent away from job, cost, travel, etc. Participants may not have opportunity to ask questions or achieve a high-level of confidence in skills learned, or no real work related (on the job) practice.

When to Use

Train multiple participants at the same time with the same information. Information/skills can be replicated (practiced) on the job.

Resources

Contact the Office of Diversity, Equality & Training (ODET) for additional assistance.

Resources

New York State, Department of Civil Services, Governor's Office of Employee Relations, Workforce and Succession Planning – Tools & Resources. http://www.cs.state.ny.us/successionplanning/resources/index

Broadwell, Martin M., *Supervisor and On-the-Job Training*, 3rd Ed., Addison-Wesley, Reading, MA, 1986.

Davenport, Thomas H. and Laurence Prusak, *Working Knowledge: How Organizations Manage What They Know*, Harvard Business School Press, Boston, 1998.

Denning, Stephen, The Springboard: *How Storytelling Ignites Action in Knowledge-Era Organizations*, Butterworth-Heinemann, Woburn, MA, 2001.

Dixon, Nancy M., Common Knowledge: *How Companies Thrive by Sharing What They Know*, Harvard Business School Press, Boston, 2000.

Hartz, Cynthia, et.al., *Measurement for Knowledge Management*, American Productivity and Quality Center Organization, February 2001.

Knowledge management Working Group of the Federal Chief Information Officers Council. *Managing Knowledge @ Work: An Overview of Knowledge management*, August 2001.

Meier, Dave, *The Accelerated Learning Handbook: A Creative Guide to Designing and Delivering Faster, More Effective Training Programs*, McGraw-Hill, New York, 2000.

Plunkett, Patrick T., *Managing Knowledge @ Work: An Overview of Knowledge Management, Knowledge management Working Group of the Federal Chief Information Officers Council*, August 2001.

Poage, James L., "Designing Performance Measures to Tell a Story: Applying Knowledge Management Principles," presented to the Federal CIO Council, Knowledge Management Working Group, November 1, 2000. <http://www.km.gov/documents/measures/measures.ppt>

Wenger, Etienne C, and William M. Snyder, "Communities of Practice: *The Organizational Frontier*," Harvard Business Review, January/February 2000, p. 139-145.

http://www.km.gov/ (Website of the Federal Chief Information Officers Council, Knowledge management Working Group, containing lots of useful resources.)