

Knowledge Transfer Tools

Knowledge Transfer Tables

The tables on the following pages are designed to provide some basic information about several different types of knowledge transfer methods and techniques. Your Management Services consultant is available to answer questions about these tables and to assist you in identifying the appropriate methods or techniques for your knowledge transfer plan(s).

Sample Knowledge Transfer Plan

A sample knowledge transfer plan is provided at the back of this document.

Knowledge Transfer Tools

JOB AIDS

What	Anything that helps people perform in real time. Knowledge can be stored in the job aid and accessed through low-tech methods by performers when the need arises.
Why	<ul style="list-style-type: none"> • Little or no additional training required to perform task • Can be easily accessible to users • Can be used by multitude of users
When	<ul style="list-style-type: none"> • Standardized process exists • Process may be performed periodically
How	Determine what knowledge needs to be shared. Develop step-by-step instructions.
Do's & Don'ts	<ul style="list-style-type: none"> • Job aids should be kept current • Job aids can be used as is, require little or no additional explanation
Example	Checklist – Desk Manual – Process Map – Guide – Instructional Sign

MENTORING PROGRAMS

What	Mentors offer advice in a situation on what to do, how to do it and why it is worth doing. A mentor is an experienced performer and rarely the mentee's supervisor, since effective mentors should have no performance management interest in the development of another person.
Why	<ul style="list-style-type: none"> • Customized training for specific situations and developmental needs • Effective method for transferring organizational culture information • Establishes reliable experienced contact outside supervisory chain • Develops higher level of proficiency
When	<ul style="list-style-type: none"> • Skill set(s) to be developed is best learned through one-on-one transfer • New employee or employee new to work level (e.g., entry level professional, manager, etc.) has specific skill set gap and/or the need to quickly and effectively have knowledge of organizational culture and norms
How	Determine what knowledge or competency needs to be mastered. Identify experienced mentor with coaching and knowledge transfer skills. Allow mentor and mentee to establish mentoring contract (typically 6 months to start)
Do's & Don'ts	<ul style="list-style-type: none"> • Participation in mentor program should be voluntary, for both the mentor and the mentee • Specific skill set or competency to be developed should be identified and agreed upon at the beginning • Mentee's supervisor should not be involved in the mentoring program, beyond receiving reports from mentor • Mentor and mentee should respect confidentiality of their mentoring sessions
Example	Team Leader advises, works with new supervisor in process problem solving, root-cause analysis and collaborative problem solving skills

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PROCESS DOCUMENTATION

What	Process documentation involves flowcharting how work is performed. It may include special variations in what performers should do or how they should do it based on special circumstances such as deviations from the norm.
Why	<ul style="list-style-type: none"> • Captures big picture; can see entire process from start to finish • Facilitates discussion about process; can help performers identify their skill gaps in process • Can help performers to identify areas for improvement in the process itself • Can be used by multitude of users
When	<ul style="list-style-type: none"> • Standardized process exists • Process is being developed, modified, or examined during problem solving root cause analysis • Performer roles in process are being developed or modified
How	Identify steps and roles in process. Document process in a flowchart, map, or linear outline.
Do's & Don'ts	<ul style="list-style-type: none"> • Document the process from start to finish • Include process roles and tasks • Avoid partial process documentation • Keep the process documentation flexible and up to date • Include special circumstances / options when possible • Make it an employee standard practice to review process documentation
Example	Workflow Chart – Process Map – Linear Outline

BEST PRACTICES MEETINGS OR STUDIES

What	Best practices meetings or studies look for different processes or systems to perform work that have had measurable success and effectiveness and are likely transferable. Best practices are found in a variety of ways; through meetings of similar functional groups, polling employees or surveying for best practices.
Why	<ul style="list-style-type: none"> • Identifies practices that have worked in other organizations and may be transferable • Can spark innovation • Can broaden network and increase performer expertise
When	<ul style="list-style-type: none"> • New process, task or competency needs to be developed • An existing process, task or competency needs modification • Success depends on staying up-to-date; focus is on gathering info
How	Determine what knowledge needs to be shared. Identify sources of information to be accessed. Establish the meeting or study parameters, develop and implement project plan
Do's & Don'ts	<ul style="list-style-type: none"> • Clarify the best practices to be researched and evaluated • Define scope and role of project and performers • Avoid vague or ambiguous goals and research topics
Example	Sample topics: Workforce Planning, Public Administration Practices, Office Safety, Government Accounting

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COMMUNITIES OF PRACTICE

What	A group of individuals sharing a common working practice over a period of time, though not part of a formally constituted work team.
Why	<ul style="list-style-type: none"> • Provides a sanctioned mechanism for sharing knowledge • Leads to improved network of contacts • Provides peer recognition and continuous learning • Provides a mechanism for sharing tacit knowledge
When	<ul style="list-style-type: none"> • When sharing tacit information is important to achieving better results • When knowledge is being constantly gained and shared it is beneficial to meeting organizational goals
How	Determine the purpose of the group (e.g., solving everyday work problems, developing and disseminating best practices). Clarify roles and responsibilities and provide resources and support.
Do's & Don'ts	<ul style="list-style-type: none"> • Membership should be voluntary • Recruit those who are seen as experts and trusted as information sources • Management should not dictate action • Focus is on gathering information rather than making decisions or taking action
Example	Finance officer meetings, cross departmental IT meetings, Admin managers network, MS Excel and Access user group

RETURNED RETIREES (i.e., Retirees on Retainer)

What	Returned retirees provide organizations with experts available to train or share specialized knowledge. The knowledge transfer plan requirement in AO 225 formalizes the State of Alaska's retiree on retainer program.
Why	<ul style="list-style-type: none"> • Specialized knowledge may be accessed from a readily recognized and available source
When	<ul style="list-style-type: none"> • Knowledge is mission critical • Retiree is immediate source of knowledge
How	Determine what knowledge employees need to know. Identify the retiree who possesses the knowledge, coaching and knowledge transfer skills and is willing and available to return to work.
Do's & Don'ts	<ul style="list-style-type: none"> • Allow time for various knowledge transfer practices to be implemented in agency • Organization should be able to perform critical tasks after knowledge transfer • Retiree on retainer should not continue to be sole source of knowledge
Example	Retiree provides: training program on specific program procedures; advice and consultation during special situations; written trouble shooting guide for future performers

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JOB SHADOWING

What	A less experienced performer is paired up with a veteran performer to transfer knowledge. The veteran is asked to share knowledge (and perhaps hands-on practice) in dealing with everyday problems in addition to the most difficult situations he or she has faced on the job.
Why	<ul style="list-style-type: none"> • Provides “real life” exposure to the job • Could be offered to several individuals; expanding the organization’s overall knowledge • Can be helpful in succession and workforce planning efforts
When	<ul style="list-style-type: none"> • To allow opportunity for individual(s) to learn about a particular occupation • Exposure to the job itself can enhance knowledge transfer, particularly with effective coaching
How	Determine what knowledge needs to be shared. Identify veteran performer who possesses competency in coaching and knowledge transfer. Identify individual(s) who will shadow veteran performer. Establish timeline and knowledge transfer goals.
Do’s & Don’ts	<ul style="list-style-type: none"> • Job Shadowing should not be used as a comprehensive on-the-job training program • Clarify roles and expectations up front • Avoid pairing less-experienced performers with slightly more experienced performers • Use debriefing sessions for coaching opportunities • Discuss educational requirements; the career ladder for the job and related positions
Example	Attending strategic planning meetings with veteran performer; Observing veteran performer for a day on the job

EXPERT SYSTEMS

What	An expert system, usually automated, is organized around problems and how to troubleshoot them. Common or difficult problems are logged into the system. Advice about troubleshooting and solving those problems is provided by the system.
Why	<ul style="list-style-type: none"> • Easily accessible • Available 24/7 • Can be used by multitude of users • Documents organization’s practices
When	<ul style="list-style-type: none"> • Future problems can be anticipated with some degree of accuracy • Solutions can be documented and explained via an expert system
How	Identify potential problems and their solutions. Document the problems and solutions, using a common language, so it can be accessed by performers on an as needed basis.
Do’s & Don’ts	<ul style="list-style-type: none"> • Document newly encountered problems and solutions as they occur to keep the system up to date • Expert systems should not be the sole method of gaining knowledge – in-person back-up may be necessary
Example	Word processing software programs’ Help feature

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CRITICAL INCIDENT REVIEWS

What	A critical incident is a difficult situation. By documenting and/or discussing the critical incident experiences for the organization's most experienced performers, the organization can capture lessons for knowledge transfer.
Why	<ul style="list-style-type: none">• Documents veteran performers' expertise and approach to problem solving• As critical incidents are captured, creates a more comprehensive set of lessons; continuously evolving• Allows for open discussions about what worked, what could be improved (document if appropriate)• Focuses on finding root cause or causes which are often process issues that result in performance issues
When	<ul style="list-style-type: none">• Sharing individual knowledge and skill is critical• Situations are not encountered routinely; documentation of previous solutions and lessons learned is vital to knowledge transfer
How	Determine what constitutes a critical incident. Identify who should be involved in the review. Identify and capture the things that went well and the things that could be improved so that team members are aware of and can use the broader team's learning in their future projects.
Do's & Don'ts	<ul style="list-style-type: none">• Clearly document the details of the incident and how it was resolved• Pay special attention to identifying whether the incident requires a process fix or a developmental fix• Avoid brief, sketchy documentation that would make it difficult for a future performer to understand what happened• Be sure you can find and review the documentation when you need it
Example	Incidents might include: citizen complaints; exposure to hazardous materials; unsuccessful project; complex program implementation

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ELECTRONIC PERFORMANCE SUPPORT SYSTEM

What	This system combines artificial intelligence, an expert system, real-time e-learning methods, and a computer-based referencing system. As a user encounters a problem, he or she can access all organizational policies and procedures through the referencing system, gain advice from past experience from the expert system, and even learn in real time using the training component.
Why	<ul style="list-style-type: none">• One-stop shopping• Available 24/7• Can be used by multitude of users
When	<ul style="list-style-type: none">• Policies, procedures, problems, solutions and training are documented and can be combined into one system• Organization is wide-spread and distance learning is more efficient than in-person training
How	Determine what knowledge needs to be shared. Document knowledge and collaborate with programming experts to create system.
Do's & Don'ts	<ul style="list-style-type: none">• System should address a broad range of issues• E-learning should relate directly to the problem being resolved• Additional troubleshooting options should be offered
Example	

STORYBOARDS

What	A story board is a group of pictures that tell a story. It is a graphic representation of what to do and how to do it.
Why	<ul style="list-style-type: none">• Can convey big picture quickly• Creates a visual cue in the learner's mind – can enhance knowledge transfer
When	<ul style="list-style-type: none">• As an executive summary or white paper to convey a concept or overview of a complex process concisely• To document instructions for a task that does not require written instructions
How	Determine what knowledge needs to be shared. Develop step by step illustrations to convey information.
Do's & Don'ts	<ul style="list-style-type: none">• Storyboards should be able to stand on their own when conveying information• Storyboards should use easy to understand symbols and pictures
Example	Emergency information cards on airplanes

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STORY TELLING

What	A story is a description of what happened in a situation. If you hear “what really happened” you are hearing a story. Story telling can be a most effective way of transmitting wisdom from one person to another.
Why	<ul style="list-style-type: none"> • Captures context in familiar format • Easy to remember (how we make sense of things) • Engage feelings and minds so more powerful than logic alone • Helps listeners see relevancy to own situation
When	<ul style="list-style-type: none"> • To impart meaning and context to ideas and facts • To aid communications • To engage buy-in, market an idea • To capture attention
How	Have a message or underlying idea being conveyed. Include a debrief process that ties the story to the key learning point.
Do's & Don'ts	<ul style="list-style-type: none"> • Be relevant to listeners' situations • Be simple, brief and concise • Test before using • Be true rather than invented • Be plausible • Provide easy mental leap from story facts to message • Make storytelling a routine part of informational or instructional meetings
Example	

DOUBLE FILLS

What	Double fill employs the experienced performer and the less experienced performer in the same position simultaneously. Usually for a set period of time.
Why	<ul style="list-style-type: none"> • Transfer an established portion of knowledge • Can reduce amount of supervisor's training time • Can provide intense, one-on-one training in all situations encountered on the job
When	<ul style="list-style-type: none"> • Budget allows for double fill • Departing employee gives enough advance notice to allow for recruitment, selection and appointment to happen prior to his or her leaving the job
How	Determine what knowledge needs to be shared. Develop timeline and action plan to assure knowledge is transferred in the time allotted for the double fill.
Do's & Don'ts	<ul style="list-style-type: none"> • The action plan and timeline should be achievable and detailed • Knowledge transfer alternatives should be available in case there are unforeseen circumstances (e.g., separating employee leaves early) • Avoid vague, ambiguous descriptions of knowledge to be transferred • Clarify roles up front
Example	Two week overlap to focus on program specific information. Computer skills, phone etiquette, and general office skills will be trained after double fill time is completed and by a different experienced performer.

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DOCUMENT REPOSITORIES

What	A collection of textual showrooms that can be viewed, retrieved and interpreted both by humans and by automates. A document repository adds navigation and categorization to the information stored.
Why	<ul style="list-style-type: none"> • Manages the intellectual property that is locked up in the documents of an organization • Can be used by multitude of users • Different from an expert system; can be paper, electronic or both
When	<ul style="list-style-type: none"> • Processes have been / are being documented • Historical knowledge of an organization's practices is important to current business needs • Performers use and need to be able to find documents in order to perform their tasks
How	Determine which documents need to be categorized and stored. Develop system to manage the entire life cycle of a document from creation through multiple revisions and finally into storage and records management.
Do's & Don'ts	<ul style="list-style-type: none"> • Standard use of the repository should be established • Repository should be kept up to date
Example	Workplace Alaska

JOB ROTATION

What	A formal program in which a person or group of persons experiences a variety of tasks and responsibilities in several different positions. Typically designed to develop an individual's knowledge base to prepare him or her for positions of increasing responsibility and scope.
Why	<ul style="list-style-type: none"> • Can develop a pool of qualified applicants for positions of increasing responsibility and scope • Decreases the impact of "brain drain" when individuals leave key positions
When	<ul style="list-style-type: none"> • Career development requires knowledge and experience in several different areas or programs • On the job experience is the most effective method of knowledge transfer
How	Determine what knowledge needs to be shared. Develop formal program that assures individuals will experience full variety of identified knowledge and tasks. Clarify requirements for successful completion of program.
Do's & Don'ts	<ul style="list-style-type: none"> • Program should have clearly defined requirements for acceptance and successful completion • Program purpose and goals should be clearly communicated to all potential participants • Program should be available to all who qualify for acceptance
Example	Areas that might use a job rotation program include: HR management team; Agency management teams; Expert programming positions

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KNOWLEDGE FAIRS

What	An event that showcases information about an organization or a topic. Knowledge fairs may be one-time events hosted by a specific user group.
Why	<ul style="list-style-type: none"> To share knowledge with a targeted audience or group Far-reaching; can be used with the public, other state agencies, or within a department, division or program To increase awareness of and knowledge about a program, topic area, or agency
When	Information can be shared easily via displays, brochures, etc.
How	Determine what knowledge needs to be shared and with whom it will be shared. Schedule fair, prepare documents and displays, market even, and clearly communicate purpose of the event.
Do's & Don'ts	<ul style="list-style-type: none"> Clarify and communicate the goal or purpose of the fair Avoid confusing a knowledge fair with a recruitment fair
Example	State Call Center Fair, featuring all of the state's call centers – Public Protection Fair, featuring information from Public Safety, Corrections, DMVA, HSS, etc.

KNOWLEDGE MAPS

What	An effort to discover the location, form, ownership, value and use of knowledge. To learn about people's expertise; to find opportunities to make better use of existing knowledge in the organization; and to identify barriers to knowledge flow.
Why	<ul style="list-style-type: none"> Highlights areas of specialty knowledge and expertise Encourages better use of information and knowledge and reduces "reinventing the wheel" Saves time searching for experts in a particular area Saves the time of experts by helping others locate needed information quickly
When	<ul style="list-style-type: none"> Enhance learning by drawing a picture of available resources and when to use them For more complex situations; the map can help less experienced performers learn who and when to use resources
How	Determine what knowledge needs to be shared. Interview experts to identify the resources they use and construct knowledge map. Educate less experienced performers in how to use the map (link to document repository).
Do's & Don'ts	<ul style="list-style-type: none"> Clarify the type of knowledge transferred at each point in the map Avoid using the map as the answer to a situation Clearly describe the parameters around the map's use (e.g., only in certain situations)
Example	Your Personal Map – Starting with a "node" representing yourself, map the people with whom you share information, both internally and externally. Try to represent whether you are only receiving information, whether you are only giving information, or whether it is a two-way exchange.

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STRUCTURED ON THE JOB TRAINING (OJT)

What	Instruction takes place on the actual job site, usually involving learning skills or procedures in a hands-on manner following a defined structured learning process.
Why	<ul style="list-style-type: none">• Provides less experienced performer, or trainee, with real-job experience• Allows work of agency to be accomplished during training
When	<ul style="list-style-type: none">• Tasks have developed procedures and aids for teaching• Real-life experience needs to be developed
How	Determine what knowledge needs to be shared. Develop step-by-step instructions. Identify trainer. Establish learning objectives and timeline for completion.
Do's & Don'ts	<ul style="list-style-type: none">• Use good performers who can also teach and coach• Provide training and resources for those coaching• Analyze the job, breaking into tasks, and develop procedures and aids for teaching• Describe, Describe and Demonstrate, Trainee performs, Trainee describes and performs, Trainee practices• Tell trainee where to go for help• Follow-up with trainee• Avoid assumptions about the depth, level and scope of knowledge already possessed by the trainee
Example	Data entry into program database – Writing monthly status report – Processing employee payroll

Knowledge Transfer Tools

KEY

Employee X = returned retiree

Employees A, B, C, D, E, F, G = current employees in the unit – recipients of the knowledge transfer

SAMPLE

Knowledge Transfer Plan

SAMPLE

Development Area	Transfer Type	Recipient(s)	Target Completion Date	Successful Transfer Measurement
Consultation on ecological research on Steller sea lions, including proposal preparation and research design	Returned Retiree – Employee X has the greatest cumulative knowledge on our team about the interactions of Steller sea lions in their Alaskan environment (biology, fisheries interactions, environmental changes, population trends).	Employees A, B, C, D	7/15/07 (24 months)	Sharing this specialized knowledge will aid in the development of our next 2 year ecology research plan.
	Job Aids – Employee X will develop an inventory of previous ADFG Steller sea lion research projects and unpublished data products	Employees A, B, C, D	7/15/06 (12 months)	Completed inventory
	Document Repositories – Employee X will work towards organization of original documentation accumulated as previous Program leader and make it available to the current program leader and other WB's when his position is completed.	Employees A, B	7/15/07 (24 months)	Documentation transfer to current program leader
	Employee X will also work towards organizing any remaining original data records to be incorporated into the Steller sea lion data documentation library	Employees C, E	7/15/06 (12 months)	Transfer of remaining original data forms into library archive

Knowledge Transfer Tools

Development Area	Transfer Type	Recipient(s)	Target Completion Date	Successful Transfer Measurement
Training and mentoring new WBIII to lead ecology research program on Steller sea lions	Mentoring program – Employee X will directly mentor new WBIII position in the overall design of the ecology program, in leadership role, and supervision of other biologist, tech and intern positions. Job rotation may also be used as a training tool in mentoring of WBIII particularly in training for chief field scientist role. This is also an example of how Double Fill is being utilized in the training of a new research leader, as Employee A will be expected over the next year or two to gradually assume more leadership responsibility for the ecology program.	Employee A	1/15/07 (18 months) NOTE: ongoing knowledge transfer process	Supervisors observe ability of new WBIII to: <ul style="list-style-type: none"> • Articulate knowledge to others • Apply knowledge appropriately to situations • Supervise others
	Process documentation – Employee X will produce a flowchart that outlines duties and activities involved in field excursion planning and scientific leadership on a research cruise	Employee A	11/15/05 (4 months)	Flowchart complete and usable for testing on field research excursion
	Critical incident review – Employee X will discuss the outcomes of previous administrative duties or events with the WBIV to aid in her development as a supervisor and program leader. Specific examples are the performance of duties and outcomes of participation on scientific advisory committees (such as the Recovery team and the NPUMMRC advisory team) and previous examples of supervisory decisions.	Employee B	1/15/06 (6 months), ongoing	Supervisors and colleagues observe ability of Program leader to: Participate as a productive member of a scientific advisory committee Promote friendly, cooperative climate in the workplace and between collaborators

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Development Area	Transfer Type	Recipient(s)	Target Completion Date	Successful Transfer Measurement
Train less experienced divers in underwater capture of sea lions	<p>Returned Retiree – Employee X is one of the two most experienced divers on our sea lion capture team and will be responsible for training less experienced divers in the various aspects of underwater capture of sea lions.</p> <p>Double Fill or Job Rotation – training of less experienced divers will take place on research capture cruises with direct underwater instruction and surface consultation to discuss results.</p>	Employees B, D, E, F, G	Ongoing (4 capture trips over 24 months)	Dive master observes advanced ability of all members of dive team
Preparation of publications on Steller sea lion research	<p>Seminar presentations – Employee X will compile and present 2 scientific reviews for our full staff meeting which will review rangewide population trends of Steller sea lions and reproductive biology of Steller sea lions.</p> <p>Returned Retiree – Employee X will be responsible for the completion of publications to be submitted to peer reviewed journals. This transfers scientific knowledge to the other members of our program, as well as to the scientific community at large and to the specific individuals responsible for management decisions related to this species.</p>	<p>All Steller sea lion program staff</p> <p>All marine mammal program staff, scientific community at large, agency managers.</p>	<p>3/15/06 (8 months)</p> <p>7/15/07 (24 months)</p>	<p>Presentation of Scientific reviews</p> <p>Submission of 4 manuscripts for publication in peer reviewed journals</p>