## METHODS OF KNOWLEDGE TRANSFER

## I. Methods of knowledge transfer

Knowledge transfer process is complex, which involves a continuous and dynamic process showed by Figure 1.



Figure 1: Knowledge transfer life cycle

Source: Diane Piktialis, Kent A. Greenes (2008): Bridging the Gaps. How to Transfer Knowledge in Today's Multigenerational Workplace

There are three approaches to select knowledge transfer method:

- 1. user needs can be used, when an individual, team, or organization has a specific needs in mind.
- 2. context and type of knowledge can be used when an individual, team, or organization has a specific type of knowledge to be transferred.
- 3. level of experience can be used when the potential receiver of the knowledge has a specific level of experience.

The first approach needs strongly personalized knowledge transfer method, while the other two summarized the following techniques.

## 1. By context and type of knowledge:

Different application context	Formal Education Training Podcasts Communities of practice	Learning histories "Serious" games
Same application context	Knowledge capture Wikis Interviews IM Blogs	Mentoring Peer assists Apprenticeship Simulation
	Specific knowledge	Analytic Expertise knowledge

## Figure 2. Knowledge transfer application framework (Simplified view – individual knowledge transfer tools in bold)

Source: Diane Piktialis, Kent A. Greenes (2008): Bridging the Gaps. How to Transfer Knowledge in Today's Multigenerational Workplace

Figure 3 is intended to depict the diverse spectrum of knowledge transfer methods as they apply in real life. It is important to note, different methods resonate with different people, depending on their personal and generational learning preferences and experience. There is no one correct method. The selected method depends on the degree of similarity of context between source and receiver and the type of knowledge to be trans



Figure 3: Knowledge transfer application spectrum

Source: Diane Piktialis, Kent A. Greenes (2008): Bridging the Gaps. How to Transfer Knowledge in Today's Multigenerational Workplace

## 2. By level of experience

Figure 4 shows a learning curve. This theory says, according to experiences success knowledge transfer needs different methods.



Figure 4: Knowledge transfer methods and the learning curve Source: Diane Piktialis, Kent A. Greenes (2008): Bridging the Gaps. How to Transfer Knowledge in Today's Multigenerational Workplace (IM= instant messaging)

## II. Techniques of knowledge transfer

## Action reviews

An action review (AR) is a quick and simple team-learning process held while work is being performed, usually during a break in a process, activity, or task. It is intended to help teams "learn in the moment" and transfer knowledge immediately into the work at hand, as opposed to learning after a project or activity has been completed. It was originally designed by the U.S. Army and is based around four simple questions:

- 1. What was supposed to happen?
- 2. What actually happened?
- 3. Why were there differences?
- 4. What can we learn and do differently right now?

An AR is designed to quickly identify key lessons and immediate actions and to build relationships, trust, and confidence among team members. All it takes to begin running an AR is a commitment to open discussion, a little time, and paper and pencil to record the results.

## Blogs

Blogs are simple web pages designed for frequent updates. Their coding requirements and cost are minimal to none. They are usually written from a personal or individual perspective

on a website available to anyone with access. In a blog the author enters his thoughts, perspective, or knowledge onto a web page, and the postings are displayed in reverse chronological order. Each entry, or post, has its own unique internet address. And each post can contain links to other posts or sites. Readers of a blog can post comments and thoughts but cannot change the original. All posted content remains in a searchable archive.

A blog's accessibility promotes transparency. Content in a blog is validated only through informal peer review. Since anyone can read a blog posted on the internet or an intranet, the author knows his content will potentially be subject to the scrutiny of experts on this content. This helps keep bloggers "honest" about their contributions. From a knowledge perspective, blogs provide useful insights about their authors. While a reader should not believe everything he reads in a blog, he may gain important context that will help him make sense of knowledge the author shares.

## Communities of practice

A CoP is a voluntary group of peers, practitioners, and other individuals whose members regularly engage in sharing and learning to improve their performance as individuals, teams, and organizations. The leader and members establish a charter and collectively decide which procedures work best in a given situation. They are the guardians of competence in that practice within a company and often codify their collective know-how in a form that can be reused and adapted by other practitioners. They help each other develop that competence, individually and collectively.

#### Instant messaging

IM is a form of real-time communication between two or more people based on typed text. The text is conveyed via computers connected over a network such as the internet. People often refer to this as "chatting online" since a typical session involves people sending each other very short, sharp messages in dialog form. Because it allows participants to see who is connected or online in their network at any moment, an instant message can be a powerful enabler for one-on-one informal learning at the moment it's needed. With IM, you can keep a list of people with whom you interact. You can IM with anyone on your "buddy list" or "contact list" as long as he or she is online. You type messages to each other into a small window that shows up on both of your screens. Most IM programs provide these features: Instant messages—Send notes back and forth with a co-worker or friend who is online

- Chat—Create a chat room with friends or co-workers
- Web links—Share links to your favorite web sites
- Video—Send and view videos, and chat face-to-face with co-workers
- Images—Look at an image stored on a colleague's computer
- File—Share files by sending them directly to your co-workers or friends
- Talk—Use the internet instead of a phone to talk with others
- Streaming content—Get real-time or near-real-time stock quotes and news
- Mobile capabilities—Send instant messages from your cell phone

## Knowledge capture

Knowledge capture is a very common method of transferring knowledge. While it is often not the most effective method, it is the most visible and easiest to understand. Put in simplest terms, it's a book, a website, or an online knowledge asset. Knowledge capture is a process that involves identification, elicitation, distillation, packaging, and publishing. It is laborious and time-consuming. But, when done right, it enables knowledge to move from one to many regardless of time and space.

#### Knowledge elicitation

Knowledge elicitation is primarily accomplished through interviews, which for this purpose are conversations between people with relevant knowledge to share and a person responsible for eliciting this knowledge. Elicitation (a step in the process of knowledge capture) is typically followed by distillation to extract key lessons and insights in concise form suitable for packaging and publishing.

#### Knowledge distillation

Knowledge distillation is the extraction of meaningful knowledge from recorded conversations, interviews, or informational events. It is a step in the process of knowledge capture.

#### *Knowledge sef-capture*

Knowledge self-capture helps individuals capture and document personal knowledge, lessons learned, and insights: in effect, to learn what they know.

#### Leadership transition workshop

Whenever there is a leadership change, a team goes through a period of establishing new norms and relationships, and understanding values and priorities. The new leader is seeking an understanding of critical business drivers and the skills and abilities of the team, while team members are seeking to understand the new leader's "hot buttons," values, and communication process. During this period, the team's effectiveness can be greatly diminished, but there is also an opportunity for the departing leader to share and transfer critical knowledge and insights.

#### Mentoring

Mentorship is a dynamic, reciprocal relationship in a work environment between an advanced career incumbent (mentor) and a novice (mentee) aimed at promoting the career development of both. Mentoring encourages a mentee to manage his own career growth, maximize his potential, develop his skills, and improve his performance.

#### Peer Assist

A peer assist is a facilitated meeting or workshop where peers from different teams share their experiences, insights, and knowledge with a team that has requested help in meeting an upcoming challenge or problem.

#### Podcasts

A podcast is a digital recording of an audio program, such as a radio broadcast, which is then downloadable from the internet to personal audio players. The concept became so popular that the business-information company NOAD declared "podcast" the "word of the year" in 2005. Though "podcast" is a combination of "iPod" and "broadcast," you do not need an Apple iPod to listen or subscribe to podcasts. Any device that can play MP3 files, from cell phones to portable MP3 players to a computer, can be used for downloading and listening to podcasts. They are no different from MP3 song files.

#### Retrospect

A retrospect is a team meeting held after an event, activity, or major milestone in a project or program. Benefits: identification of valuable lessons, enhanced team openness and cooperation and achievement of closure at project's end.

## Storytelling

Storytelling is an ancient way of passing on complex, multi-dimensional information, experience, and ideas through narrative. Stories have many purposes and styles. Knowledge-sharing stories convey the essential details of an experience that stood out for the storyteller—information and emotion, explicit and tacit, core and peripheral context. Well-designed, well-told stories can help others learn from past situations to respond more effectively in future ones. Such stories come in different forms and with a variety of labels, e.g., cases, anecdotes, examples, histories, or simply "experiences."

In the past, information that could be classified, categorized, calculated, and analyzed often was most highly valued in organizations. But much important organizational knowledge, wisdom, and insight cannot be abstracted into categories and calculations. Organizations wanting to retain and share this essential but less structured information find that stories can be invaluable.

#### Wikis

Wiki is short for "wiki wiki web," from the Hawaiian expression "wiki wiki" meaning fast or quick. It is a website where anybody can create and edit a web page. The structure is not predetermined; it is invented and evolved by the community that contributes to it. Wikis make it easy to author content anytime and from anyplace. While they are particularly suited to teams for sharing good practices, lessons, and projects, visitors to the site can add, edit, or delete content. This means a team or organization can benefit from people other than the "usual suspects," that is, people who have relevant knowledge to share on a specific topic but who wouldn't normally be tapped for their contribution in the course of a piece of work. In practice, all input to the site is usually filtered by an individual or group responsible to ensure that inappropriate contributions do not appear on the site.

Perhaps the most widely known wiki is Wikipedia (www.Wikipedia.org), an online encyclopedia written collaboratively and edited, corrected, and updated by its readers. To view a Wikipedia on wikis, click on this URL: en.Wikipedia.org/Wiki/Wiki. Internet search results for many basic topics often have a relevant Wikipedia site listed near the top of the result stack.

Unfortunately, the flexibility and openness of this method of knowledge transfer raises concern about the nature and validity of the content. However, all entries are tracked and all changes to content are recorded. As a result, people tend to make legitimate and accurate contributions and modifications. In practice, inaccuracies or inappropriate content are quickly addressed because of the volume of visitors and ease of changing what has been added.

# (Source: Diane Piktialis, Kent A. Greenes (2008): Bridging the Gaps. How to Transfer Knowledge in Today's Multigenerational Workplace)

According to other sources, there are two types of knowledge: explicit and tacit. *Explicit* knowledge lends itself to transfer strategies such as formal desk manuals, procedures, and other codified processes. *Tacit* knowledge lends itself to transfer strategies such as mentoring, coaching, communities of practice and the like. *Explicit* knowledge is more easily quantified and qualified, and can thus be more readily captured. *Tacit* knowledge, however, involves soft skills, personal characteristics, development of cooperative partnerships, and subjective situational judgments. As this type of knowledge is more intuitive in nature and derived from experience, it is less readily distilled and captured into orderly process structures.

#### Techniques of tacit knowledge transfer

- Boot Camp:
  - **Specific topic:** A subject matter expert (SME) conducts a training session or sessions on a specific topic. Only one topic is covered and in a relatively short session (no longer than 4 hours). The topic may be an application or a unique aspect of it (e.g., a new approach to records management, a review or reconsideration of constructive intervention, a hands-on training to use or maintain a specific piece of equipment, etc.). The focus is on one topic only; and if something else arises during the session, it will be set aside for the SME to conduct future training sessions.
  - **Multiple Topics**: For offices with multiple areas of operations, the Boot Camp can consist of training modules designed for knowledge that is applicable to: (1) all operational areas; and/or (2) specific or limited operational areas. User guides and mentor programs may be incorporated into these modules. New and existing staff shall go through sequences of training sessions depending on their assignments.
- Best Practices Meetings / Studies (In-House Workshops; Education Committees; @ Tailgate Meetings): Best practices meetings/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.
- **Communities of Practice** A group of individuals sharing a common working practice over a period of time, though not part of a formally constituted work team.
- Critical Incident Reviews / Lessons Learned By documenting, discussing, and/or deconstructing critical incidents and perspectives of the organization's most experienced performers, an organization can not only implement improvements, but also capture lessons for knowledge transfer.
- **Expert Storytelling** Expert storytelling/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 an outside source.
- Knowledge Fairs An event that showcases information about an organization or a topic. Knowledge fairs may be one-time events hosted by a specific user group.

## Knowledge transfer for an individual

- Cross-Training (Position Backup) The training of one employee to do another's work.
- Job Shadowing A less experienced performer is paired up with a veteran performer to transfer knowledge. The veteran is asked to share knowledge and provide hands-on practice in dealing with everyday problems in addition to the most difficult situations he/she has faced on the job.
- **Mentoring Programs** Mentors provide coaching to mentees to assist in achieving professional goals, expand organizational knowledge, and create well-rounded employees that are more likely to stay within an organization.
- **Structured On-The-Job Training** (OJT) 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.

• **Transitional Training** ("Double Fill") Transitional training - or "double fill" - employs the experienced performer and the less experienced performer in the *same position simultaneously*. Usually for a set period of time.

## Multimedia

- Expert Interviews / Expert Storytelling Expert storytelling/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 an outside source.
- **Knowledge Maps** 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.
- Wiki A web communication and collaboration tool where users can create/capture knowledge and information. It is a platform which allows any authorized individual or team to edit subject material, add comments, or provide additional content.

## Rotational programs

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.

(Source: Knowledge transfer guidebook http://www.dot.ca.gov/docs/ct\_knowledge\_transfer\_guidebook.pdf)