

**From
Knowledge of Implementation
to
Implementation of Knowledge**

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**Forum of Master Project Managers
NASA, Rockville, MD
September 2000**

The Role of Practitioners in Developing Knowledge of Implementation

In the Past:

- **Researchers** developed concepts and tools.
- **Staff specialists** developed procedures.
- **Consultants** conducted training.
- Organizations learnt from **other successful organizations**.

In the Future:

- **Practitioners** will take an active and often a leading role in all these knowledge development activities.
- Learning will focus first on **“learning from our own experience,”** and only then on learning from the so-called best companies.

Definitions

Data

A set of discrete, objective facts about events.

Information

Data that makes a difference in the receiver's outlook or insight (a message).

Knowledge

A high value form of information that is ready to apply to decisions and actions (actionable information).

The Knowledge Management
Initiative at the Academy:
Objectives

1. Identify and attract the best project managers at NASA.

2. Create and share new knowledge within and between centers.

Tangible products:

- Best practices
- Case studies
- Stories
- Lessons

Intangible products:

- Learn how to **learn from experience**
- Learn how to **unlearn**
- Become more **reflective** practitioners

3. Develop and test new ideas and tools, e.g., curriculum and teaching methods at Wallops, case studies, e-learning, mentoring.

4. Identify and coach prospective instructors for the Academy.

5. Change participants' mind-set and empower them.

NASA's best practitioners are
the **best source** for knowledge.

In some aspects **complementary** to
Goldin, Griner, Laufer and alike,
in other aspects
the **only reliable** source.

Research objectivity is a myth.

**Scientists are not free of bias,
opinion, or conviction.**

“The Subjective Side of Science,”

Ian Mitroff, 1974

**“It is the theory which describes
what we can observe.”**

Albert Einstein

Believing is seeing.

**Your beliefs control what you
see.**

**To believe is to notice
selectively.**

Karl Weick

“I’ll believe it when I see it”

or

“I’ll see it when I believe it”

The “Knowing-Doing” Gap

“The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action,” Pfeffer and Sutton.

- Often, the problem is not, “not knowing”, but rather “not implementing”.
- The \$60 billion spent annually on training by US organizations is not highly effective.

Typical KM practices make knowing-doing gaps worse:

KM efforts mostly emphasize technology and the transfer of codified information.

- Tacit knowledge is best shared through people.
- Explicit knowledge can be shared through machines.
- The more tacit the knowledge, the less high-tech the technology that supports it.

Any knowledge management system that spends more than one third of its budget on technology is not a KM initiative but an IT project –

“dead metal”

Jim Botkin, Smart Business

Solving the Knowing-Doing Gap: **Guidelines for Actions**

1. Why before how: philosophy is important
2. Knowing comes from doing and teaching others how
3. Action counts more than elegant plans and concepts.
4. There is no doing without mistakes. What is the company's response?
5. Fear fosters knowing-doing gaps, so drive out fear.

Leadership and KM

There are tight connections (and overlaps) between the principles and application of:

- **Project management**
- **Change management**
- **Knowledge management**
- **Leadership**

The best project managers at NASA must dedicate **continuous** effort aimed at generating and sharing knowledge for two compelling reasons:

- The survival and development of NASA
- Their own professional and leadership growth

Changing Mind-Set

- Participating in systematic Knowledge Sharing (KS) requires a fundamental **shift of mind-set**.
- Changing mind-set is usually a complicated and **gradual process**.

- People's minds are seldom changed as a result of arguments. They are often changed through **cycles of action and reflection**.
- At the **beginning**, the heavy emphasis should be on **action**: learning by doing, or more accurately, *unlearning* by doing.
- Surprisingly, changing mind-set starts with **implementation**.

- Learning by doing can take place once people are sold on **employing a method** that is based on the desired new mindset.
- When implementation of the method brings about **small** but clear **wins**, people are motivated to reflect on the method.

- Now they are ready to learn more about it via classical methods, such as listening to **lectures** and reading **books**.
- **Cycles of action and reflection** eventually lead to the desired fundamental change in behavior and orientation.

“If you want to teach people a new way of thinking don’t bother trying to teach them.

Instead, give them a tool, the use of which will lead to new ways of thinking.”

Buckminster Fuller

Today's Methodology

- Cycles of action and reflection, should guide our **KS activities**.
- During our first KS meetings, we will spend more time on **practicing KS** and less on talking about it.

- Our activities will focus on presentations in which the presenters practice KS by **sharing their experiences.**
 - The presentations will be followed by **conversations.**
 - In these conversations we will try to engage as many as possible members of the KS group to **practice KS**, by reflecting on, and by sharing their own experiences.
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Future Plans

**Knowledge Management
East/West**

A New On-Line Journal

ASK

Academy Sharing Knowledge

**• From Knowledge of
Implementation**

**• Through Implementation of
knowledge Management**

**• To Implementation of
Knowledge**