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PROJECT MANAGEMENT 2022

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"Most people do not accumulate a body of experience. Most people go through life undergoing a series of happenings, which pass through their systems undigested. Happenings become experiences when they are digested, when they are reflected on, related to general patterns, and synthesized"

- Saul D. Alinsky, 1971

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1. INTRODUCTION

1.1 What is knowledge

Knowledge has been a disputed and discussed topic for as long as humans have been conscious of their own existence. The search for the origin or validity of our knowledge remains a central theme. The Norwegian Encyclopedia (SNL) defines knowledge as something we are familiar with, aware of, understand, or possess skills related to. Knowledge is something we apply with intent.

Our understanding of what knowledge is and how it functions has changed significantly over time. Primarily, we have moved from viewing knowledge as a unit to be stored and transferred, to understanding it as a process through which we reuse and reshape it (Huber, 1991).

1.2 Explicit and tacit knowledge

Today, we distinguish between various types of knowledge—for example, explicit and tacit knowledge. Explicit knowledge is tangible and easily transferable, while tacit knowledge is acquired through experience and not necessarily communicated (Wikipedia).

Where explicit knowledge can be communicated and processed, tacit knowledge is generally harder to formalize, articulate, and put into words (Skyttermoen & Vaagaasar, 2015, p. 299).

1.3 Challenges

Terry Williams (2008) emphasizes the importance of learning from project experiences and calls it vital—yet notes that it is often neglected. He highlights fundamental aspects of project work that naturally limit learning outcomes, such as the temporary nature of projects and their inherent complexity.

Williams (2008) also points out that projects account for more than two-thirds of value creation in the Western world—underscoring the importance of learning from the work we do.

"Our problem is not the mistakes we make during projects. Mistakes are useful because they help us to be aware of our shortcomings. The problem is the sense of the déjà vu we feel during each new project when we make more or less the same mistakes. It is frustrating to everyone."

– Hussein, 2020

1.4 Main problems in learning

Two main problems are often highlighted regarding learning in projects. The first stems from limited time for reflection, non-collaborative environments, or a lack of supportive systems. Project participants learn a lot, but with intentional reflection, interaction, and systems in place, learning outcomes could be much greater (Keegan & Turner, 2003).

The second common problem is that learning occurring in projects does not significantly benefit the overall organization (Schindler & Eppler, 2003).

Projects generate new knowledge, but the permanent organization struggles to capture and utilize this knowledge—a phenomenon known as the "learning dilemma" (Andersen, 2016, p. 27).

1.5 Reports as inefficient

Reports are commonly used to document and transfer the experiences we gain, aiming to both record and control processes and results (Skyttermoen & Vaagaasar, 2017, p. 170). Final reports often contain a learning component to support improved results. However, as learning tools, reports are often criticized.

They mostly contain explicit knowledge (Polanyi, 1966), which is important, but captures only a fraction of the essential project experiences. Much knowledge lies in project participants' actions and relationships —this is tacit knowledge, hard to document in reports.

Bassam Hussein (2020) even argued that failing to transfer knowledge between projects is more the rule than the exception.

1.6 Research question

The purpose of this paper is to explore methods for preserving and utilizing knowledge gained through project work—both for future projects and within the base organization. So the question I pose is therefore:

How can we better facilitate the use of knowledge acquired through project work?

2. ANALYTICAL FRAMEWORK

2.1 Framework

My topic is thoroughly covered in the curriculum and is a debated subject both academically and practically. I used academic literature, peer-reviewed research, relevant articles, online data, and an interview. Combining primary and secondary sources created a solid foundation. I believe tying theory to up-to-date data adds relevance to the paper.

2.2 Method

To gain deeper insight, I included qualitative data from an interview. I wanted to "take the pulse" of whether the methods I read about are actually used in the field. I conducted a semi-structured interview using a prepared guide while allowing the conversation to evolve naturally (Cohen, 2018).

Interviews are suitable for capturing experience and perspectives, especially for deeper understanding (Thagaard, 2008).

While qualitative data doesn't offer numeric results, it helps provide a broader impression (SurveyMonkey).

The interview subject is anonymized as "XX". I acknowledge the interview is not representative but still contributes valuable depth.

2.3 Credibility

A risk when using many sources is reduced credibility. Key principles of source criticism include reliability, validity, accuracy, authority, and recency, as well as the source's perspective. I ensured credibility by asking a reference person to review and help fact-check.

2.4 Project tools

To maintain progress, I developed a project mandate with SMART goals, a milestone plan, Gantt chart, and a change log—for reporting and reflection purposes.

3. LEARNING

3.1 attitude toward learning

Since the early 2000s, several researchers have emphasized that what matters most is how knowledge is used (Gherardi, 2000; Tsoukas, 2009).

Knowledge has little value unless it leads to lasting changes in perception and behavior (Huber, 1991), and learning must lead to action and improved task performance (Nordhaug, 2009).

To convert knowledge into competence, attitude is crucial. In simple terms, having knowledge and ability means little without the will to act (Skyttermoen & Vaagaasar, 2015, p. 286).

Hussein (2020) mentioned trust, openness, respect, loyalty, and engagement as core values needed for

successful projects. These values significantly influence motivation, creativity, cooperation, ownership, and knowledge sharing.

As Kouzes & Posner put it in *The Leadership Challenge* (1987): **Trust enables action.**

3.2 Organizational learning

Facilitating learning in projects is not just for individual benefit—it's to ensure the **organization** retains new knowledge.

The concept of a "learning organization" refers to one that constantly encourages its members to increase their capacity to achieve desired results. This fosters expansive thinking and collective vision (Senge, 1990).

A learning organization can create, acquire, and transfer knowledge—and adjust behavior accordingly (Garvin, 1993).

3.3 Single- and double-loop learning

Organizational learning guides behavior through embedded rules and processes—this often represents goal-oriented knowledge (Argyris & Schön, 1978).

When the organization experiences something, participants' experiences are turned into knowledge through articulation—they are verbalized and shared.

This process is called *knowledge articulation*, where general principles from shared experience are documented (Skyttermoen & Vaagaasar, 2015, p. 307).

There's a difference between adapting existing processes (single-loop learning) and changing the foundation of those processes (double-loop learning). The former tweaks what exists; the latter rethinks it entirely (Argyris & Schön, 1978).

Facilitating both learning types makes projects not just a place for knowledge creation, but a force that leaves lasting impacts on the organization (Hussein, 2020).

3.4 Learning as part of the Iron Triangle

Learning happens at multiple levels—individual, project, and organization.

Actively facilitating learning from experience is crucial, so that the resources used to solve problems or respond to changes also benefit future efforts (Damm & Schindler, 2002; March, 1991; Bartsch et al., 2013).

To fully realize a project's potential, **learning** should be prioritized alongside **time, cost, and quality** in the iron triangle (Arthur et al., 2001).

3.5 Experiential learning

The concept of experiential learning—"learning by doing" and "learning by trial and error"—was introduced by John Dewey (1938).

He emphasized that activating learners leads to deeper understanding and retention (Skyttermoen & Vaagaasar, 2015, p. 290).

Dewey also argued that knowledge gained through experience is easier to apply in practice. Kaufmann & Kaufmann (2015) confirmed this, noting that such learning leads to lasting change in thinking and behavior.

The goal is to develop curiosity, observation, and the ability to “learn how to learn.”

This learning model supports the idea that we learn best by solving real-world problems and reflecting critically (Andersen, 2016, p. 29).

“Knowledge is one thing—but knowing is being able to apply it. That’s what determines how much you can truly learn.”
– XX, Zoom interview 2022

Reflection is the core of experiential learning (Dewey, 1938; Kolb, 1984).

To raise awareness of our daily actions and foster ongoing learning, Mintzberg (2004) also emphasized collective discussion.

Community is key—project participants often misinterpret their environments and overemphasize certain events (Levinthal & March, 1993). This can distort understanding if not balanced through shared reflection.

4. HOW TO FACILITATE LEARNING?

4.1 Infrastructure, process, and culture

Dr. Kondal Reddy Kandadi (2017), in his TED talk on knowledge transfer and innovation, highlights three main factors essential to transferring experiences from projects: infrastructure, process, and culture. Infrastructure and process refer to systems in place that preserve knowledge—provided individuals are motivated to share. Kandadi emphasizes the importance of these systems in supporting knowledge transfer.

Furthermore, he asserts that as much as 99% of all innovation happens **outside** the meeting room. Thus, **culture** is considered a central factor in encouraging project participants to share knowledge with one another. Knowledge management and project management are complementary practices that work together to improve an organization’s overall performance (Kandadi, 2017).

The use of a Project Management Office (PMO) as a unit for safeguarding and managing processes that support projects, as well as contributing to greater project maturity and improved execution (Skyttermoen

& Vaagaasar, 2017, p. 187), is increasing. Wellington's 2021 study showed that 86% of respondents stated their organization has one or more active PMOs—a noticeable increase from 71% in 2016.

Typical tasks for a PMO include supporting training and tool usage, developing procedures and routines, building understanding of project-based work across the company, and facilitating the transfer of learning and experience between projects and the base organization (Skyttermoen & Vaagaasar, 2017, p. 187).

Social relationships are also key for knowledge sharing. For these relationships to flourish and for knowledge sharing to follow, there must be a shared agreement that investing time in nurturing such relationships is worthwhile. The project must be perceived as open to contributions from its participants (Skyttermoen & Vaagaasar, 2015, p. 295). It is crucial to cultivate a working method that encourages sharing, questioning, and helping each other (Koskinen, 2001).

The larger a participant's network, the less likely they are to seek out written sources (Kvålshaugen & Breunig, 2009).

Key principles that encourage a culture of learning include:

- Allowing room for mistakes
- Admitting to one's own errors
- Valuing the input of project participants
- Showing visible enthusiasm
- Allowing others to build on one's own ideas (Hobbs, 2000, p. 88)

4.2 Reflection

In daily life, there is rarely room to reflect on our experiences and thus convert them into valuable knowledge. "What we process, we learn," says Peter Doolittle (2013) in his TED talk about working memory. He urges us to take time to reflect on our daily experiences. Reflection invites us to question assumptions we usually take for granted and opens the door to new insights (Raelin, 2002).

We've already seen that reflection is highlighted as a critical learning principle across various levels, yet few practice it systematically.

The concept of the "reflective practitioner" is the ideal outcome of experiential learning. It describes project participants who are capable of reflecting on their own behavior and changing it when needed (Argyris & Schön, 1978). Reflection involves both mental and emotional processes and serves as a bridge between experience and learning (Boud et al., 1985).

It's important to actively facilitate discussions about one's own practice and the value of learning from experience. This acknowledgment should manifest in how we schedule time for reflection and how collaboration is marked by curiosity about events and openness to challenge established truths (Raelin, 2002). It should also be visible in the exercises and tasks we design around reflection and experience (Skyttermoen & Vaagaasar, 2015, p. 292).

4.3 Roundtable Dialogues and Simulation

To uncover and activate the various knowledge components participants hold, exercises such as roundtable dialogues and simulations can be valuable. In roundtable dialogues, a problem is presented, and the group goes through it systematically—each participant explains how they would solve the situation (Vaagaasar, 2008). The exercise trains participants in problem-solving and supports collective handling.

Simulation exercises involve role-playing, where the project group practices realistic scenarios and then reflects both individually and together afterward. The aim is to accumulate and systematize knowledge through simulation so that participants are better prepared for future challenges (Skyttermoen & Vaagaasar, p. 303).

"I don't think the problem lies in the tools—it's about mindset. Is learning important or not? Do we prioritize deadlines over learning? It doesn't help to meet if we're not mentally prepared to learn and share the necessary knowledge."
– XX, Zoom interview, 2022

5. INTERVIEW

5.2 Interview Insights

XX teaches at one of Norway's largest faculties and has received several accolades for their engagement and work. XX's academic and research focus is project management. The Zoom interview lasted 30 minutes, and several key points are highlighted below.

I asked XX how we could specifically safeguard tacit knowledge gained through project work:

"The only way to convey tacit knowledge is through confrontation—people need to talk, reflect, argue, hold roundtable dialogues, and move between projects. It's very difficult to specify what prerequisites are needed to transfer knowledge from one place to another—it depends on what kind of learning you want to transfer."

“You can’t standardize how to capture this knowledge. The only way to obtain tacit knowledge is by moving people between projects when they finish and ensuring ‘critical mass,’ which is said to be 80%. That means if you take 80% of those who worked on Project X and move them to the next project, the knowledge they developed is unlikely to be lost.”

“Critical mass” refers to the point at which something (an idea, belief, trend, behavior, etc.) becomes widespread enough to sustain a process, reaction, or technology.
Source: https://fs.blog/critical-mass

According to XX, proper context and mental models are essential foundations for learning. If you don’t have enough mental models or prior knowledge, acquiring new knowledge becomes difficult. In short: people must share an understanding of context and goals in order to learn from one another.

“This makes transferring knowledge through social methods much more complicated. Your mental models must be sufficient and relevant for you to be able to acquire new knowledge.”

XX also shared insights on experiential learning and expressed that it might be overrated, given how narrow the basis can be for forming solid evidence. If learning is based on experience, we must gather a lot of experience to form meaningful insights.

I also asked what a company that actively facilitates experience transfer would look like in their opinion:

“You’d probably need several measures, but the most important is to stop thinking of a project as merely a task. It’s not—it’s an opportunity to learn. The learning outcome should be just as important as delivery, time, and cost. Learning must be prioritized more than time and cost.”

“It’s a circular relationship. Learning leads to better performance. Better performance leads to a greater appreciation for learning. But you don’t start from performance—you start from learning.”

6. SUMMARY

Learning is a complex and multifaceted process that must be actively managed (Andersen, 2016, p. 127). Transferring knowledge and experience is a complicated challenge that will likely never have a simple solution—but rather a network of complementary measures.

We've seen that reflection is essential for learning from our experiences. But for an organization to truly benefit from the knowledge we acquire, much more is needed. We need systems that collect and make the right information accessible (Hobbs, 2000, p. 87), time for interaction and simulation, and a culture that encourages participants to share, receive, and seek knowledge.

But above all, **we**—as project participants, leaders, stakeholders, companies, and organizations—must change our mindset toward learning.

Our mindset must be visible in how we plan projects, what we aim to get out of them, the questions we ask, and the exercises we do.

Knowledge is an enormous—and often underutilized—resource. Learning from our projects can offer more than just insight into internal and external factors; it can also boost innovation and adaptability in the face of future challenges.

Facilitating learning is sustainable, resource-efficient, and future-oriented.

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