Knowledge transfer: The new framework to reduce project risks

Project leaders enhance their communication process to mitigate project challenges

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Project managers' ability to deliver successful projects and demonstrate value is becoming increasingly more complex every day. The pressures faced with each project are dynamic and require project managers to identify, analyze, and implement processes and strategies that assist them in reducing project risks while still delivering high-quality projects. The question is how to mitigate risk once it has been identified. And, how can project management professionals use that information effectively on current and future projects?

Knowledge transfer is an often discussed but a misunderstood concept that could be used as a suite of tools to help mitigate project risks. Many project management professionals mistakenly use lessons learned to describe knowledge transfer without understanding the concept. This leads project managers to collect data and not take other steps necessary to make it an effective knowledge transfer tool.

Knowledge transfer is defined in the MacMillian Dictionary as "the process of communicating knowledge that has been developed in one part of an organization to other parts of the organization or to customers."

The effective communication of knowledge transfer must follow a process to gather and capture information, share potential solutions and then integrate the knowledge captured into projects. A simple but effective approach to knowledge transfer is the process flow technique (chart on pg. 30).

The commitment to a proper knowledge transfer process by project-oriented organizations, led by a senior individual or project sponsor, will reduce project risks and increase satisfaction. How can we achieve this on our projects?
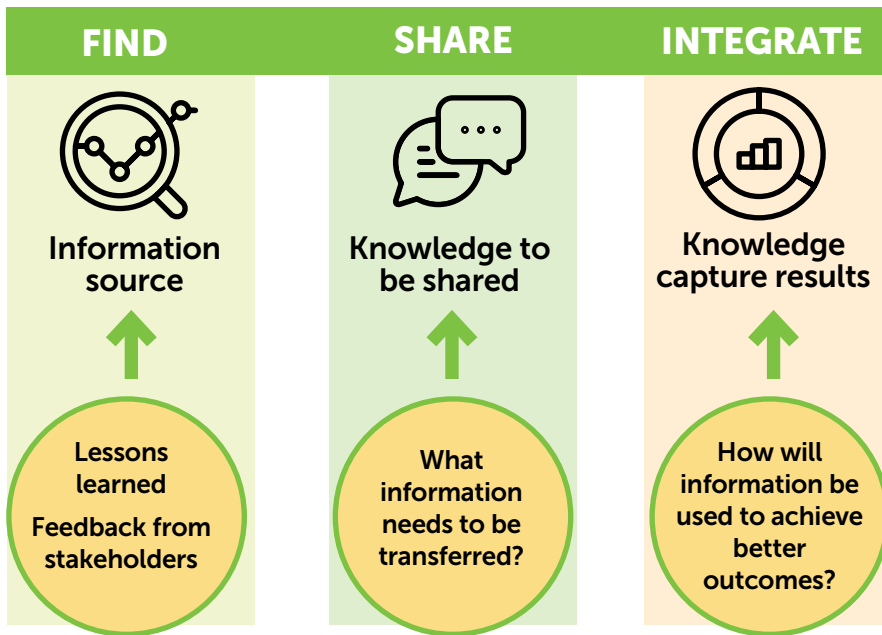
Information source

A significant component in the delivery of effective knowledge transfer is the use of lessons learned on projects. Lessons learned have become synonymous with knowledge transfer, but they are not the same.

The ability of people to identify particular issues that may exist or that have occurred is the first step in knowledge transfer. Individuals must determine the base data or information that has caused a specific problem or event to occur. A systematic gathering of information is necessary to support a thorough lessons learned document, which will maximize the effectiveness of the knowledge transfer process.

Some of the questions the document should include are as follows:

1. What is the issue or consideration to discuss? Clarity of the matter is essential for careful consideration.
2. Why did the issue happen? Was there an action either by the project manager or the client that caused the problem?

FIND	SHARE	INTEGRATE

Information source

Lessons learned

Feedback from stakeholders

Knowledge to be shared

What information needs to be transferred?

Knowledge capture results

How will information be used to achieve better outcomes?

Key points that may require further discussion and analysis can be further developed and determined through strategic thinking. The result may not be a total acceptance of the data. However, a series of avenues will unveil to resolve a particular issue. At this stage, the focus should be on narrowing the discussion and trying to fit all aspects of the specific issue into a neat package. When this is not possible, at the very least, define the parameters used to guide the deliverer of the information so they can show the receiver how to use the information gathered. When possible, determine what revisions are necessary to reduce the issue from happening again. It may also mitigate the impact on the project or program.

Knowledge capture results

Once information is communicated and analyzed, the project team should use the information to improve future project performance. Analysis of information identifies critical project areas in need of improvement and can result in changes in practice. To effectively transfer the knowledge captured, it is essential to consider how it will affect the various project management knowledge areas, which individuals can find in the Project Management Book of Knowledge, published by the Project Management Institute. Areas such as project scope, project time, project cost, project quality and project risk will be affected. To effectively generate a revised process, there must be a dedicated structure to receive and discuss the proposed process developed through the analysis stage and consider its ability to better outcomes.

Project delivery groups should utilize a two-stage approach to vet proposed changes thoroughly. Once analyzed, the proposed change is presented at the Continuous Improvement Committee, which assesses the commercial risks and impact on the program or project. This results in an iterative cycle of discussion, which involves revising and agreeing to the proposed change. The revised document then goes to a legal committee that reviews its impact on procurement and con-

3. When did the issue or consideration happen, and what is hindering the issue's ability from being resolved?
4. Where did the issue occur? It is more critical if a safety issue has happened on a construction site versus a design error through the lack of coordination. Whether it be a construction site or a design blunder, where the issue occurred can significantly affect the delivery of your project.
5. How did the issue occur? Was the issue caused directly or indirectly by project staff, a client or a contractor? And, how did their actions cause the issue.

There may be a desire to avoid careful assembly of information related to the issue. It can become easy for a project stakeholder to immediately identify the problem without considering the remaining information that exists, which may result in not seeing the big picture. There may also be a tendency not to consider the input from various project stakeholders or consider the best practices that may support information in the data gathering process. It is necessary to develop a thorough understanding of the many factors that cause an issue before commencing the analysis.

Knowledge to be shared

The next step in effective knowledge transfer is the communication of the data, which is gathered during the information source stage. The assembly of data in a coherent manner and its transmission to other individuals (internal and external) promotes sharing experiences that can help define various approaches to dealing with the issue. And, even though a common theme may not be clear on one project when looked at across a suite of projects, a set of parameters and options may be easier to identify for consideration. The sharing of the information should be based on these three considerations:

1. What information is necessary to share? Does the issue require a thorough analysis, or is it an anomaly, or will it add value to the project or program in progress?
2. Why is it being shared? Will sharing the information result in a necessary change to a delivery model or practice, thereby increasing value and reducing risk?
3. Who is the receiver of the information? The project manager should identify the willing receiver of the information. They should be able to use the data further to enhance the project's delivery, reduce risk, and increase value.

tractual elements. The consideration of its implications commercially and contractually results in a change to best practice that is more robust and is commercially and legally defendable.

However, the challenge is determining when a proposed change adds value to the project. An effective way is to perform a project risk analysis that demonstrates when a knowledge transfer result should be implemented. Although it may be difficult to attribute an actual budget, schedule or quality impact that a proposed change may have on a program or project, there may be a way to recognize when a knowledge transfer result will demonstrate value (see Table 1). By creating a chart that captures the significance, probability and impact of the proposed knowledge transfer item, the project manager can triage the effort and detail that may need to be considered to implement the item.

Knowledge transfer is necessary for effective project management to occur. However, the process involved in capturing the knowledge is not well understood. There needs to be an understanding that the lesson learned does not equal knowledge transfer. Knowledge transfer is a process that includes gathering information, the information source stage, knowledge and the knowledge capture results stage. In most instances, knowledge transfer will help project team members better manage their budget, schedule, and quality. Although it is beneficial to consider knowledge transfer in every stage of the project or program, it is also essential to know when to consider spending time and resources to implement the knowledge transfer result. Using a simplistic process to transform the data captured on projects into a knowledge transfer result, project management teams will achieve higher performance outcomes and have a greater chance of diminishing risks altogether. 📖

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TABLE 1

Knowledge Transfer Item	A Significance of Knowledge Transfer Item	B Probability (that not taking an action will result in a poor outcome)	C Impact (that not taking an action will affect a successful outcome)	D Measure of need for Knowledge Transfer item
(Description)	1	1	1	3
	1	3	3	7
	3	3	3	9
	5	3	3	11
	5	5	5	15

Using a simple metric to define the significance of an event, probability or an impact occurring and then adding the value in each of the columns may provide insight on items to consider when trying to develop a good knowledge management approach.

High – 5 • Medium – 3 • Low – 1

Consider D=A+B+C, if D>7 then the item warrants a more immediate action.