

Building enterprise project management capability 3

Improving project management maturity through innovation and learning

by Professor J. Rodney Turner

Last month I described what we mean by enterprise project management capability and maturity. This month I consider how organizations can improve their project management capability, and what innovation and learning practices they can adopt to achieve that considering:

- a four-stage process of innovation and learning in organizations
- how that process is supported by the practices for increasing maturity described last month
- what barriers there are to innovation and learning in project-based organizations
- how project-based organizations can facilitate innovation and learning.

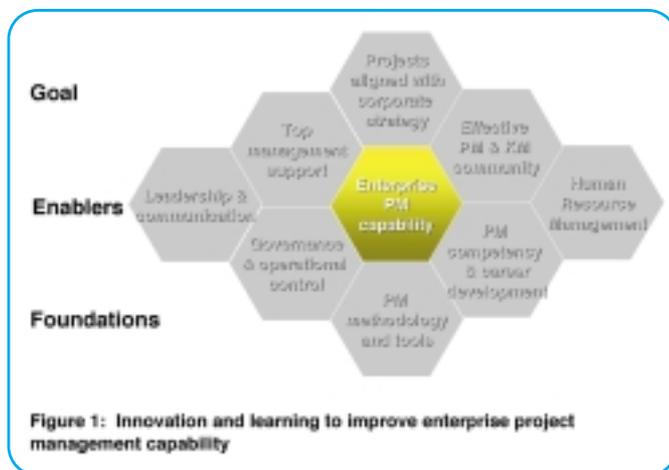


Figure 1: Innovation and learning to improve enterprise project management capability

A four-stage process of innovation and learning

Innovation and learning in a project-based organization follow a four-step process:

- **Variation:** new ideas are created, sometimes by deliberate problem solving and purposeful creativity, sometimes by random occurrences and fortuitous happenstance.
- **Selection:** through a review process, good, successful, new ideas are chosen for re-use.
- **Retention:** those ideas chosen for re-use are stored in the organization's memory where they can be used by people in the organization.
- **Distribution:** ideas are distributed from the organization's memory to people working on projects, who may be working at some distance from the centre.

The first three steps in this process were originally suggested in the evolution literature to explain the evolution of species of plants and animals. New features (genes) in species occur by random variation. Successful features (genes) are selected by survival of the fittest, and are then stored in the memory (the gene pool). The three-step process was later adopted to explain learning in organizations. New ideas arise in organizations, sometimes by chance, but sometimes purposefully with people deliberately trying new ideas. Good ideas are selected for retention, and those ideas selected for re-use are stored in the organization's memory. In a functional organization it ends there. Knowledge is stored in the function for re-use by people working in the function. People's careers are limited to one function, climbing the ladder up the functional silo. So, as their career develops in the function, they are

exposed to the retained knowledge in that function, where it is available for them to draw on locally.

It is different in project-based organizations. People work on projects away from the functional centre, sometimes geographically quite distant. In order for the good new ideas to be used, they must be distributed somehow from the functional memory banks to people working on projects as new projects start. Thus distribution of the knowledge is an important fourth step in the knowledge management process in a project-based organization, which is not necessary in a functional organization.

Linking the process to organizational project management maturity

Last month I identified four practices for building organizational project management competence and maturity:

- the use of procedures
- project reviews
- benchmarking

- the development of a project management community.

Table 1 shows how these four practices support the four-step process for innovation and learning to build organizational project management maturity, or enterprise-wide project management capability.

Variation

There are many ways that new ideas can be generated in the project management community:

1. People identify new ideas by talking to each other. Perhaps two people who have not worked together before work on a project for the first time, and each has an idea that they fuse into a new idea.
2. I suggested last month that the project management community might arrange regular events; once every three months, say, an evening lecture is arranged, followed by socializing. Two people might meet and share their ideas to create a new, better idea. Or one person might have a problem on their project, and another suggests a solution, which the

Table 1: The four practices in innovation and learning

Learning process	Practice for increasing maturity
Variation	<ul style="list-style-type: none"> ● the project management community generates new ideas ● new ideas are generated in project reviews
Selection	<ul style="list-style-type: none"> ● good ideas are selected in project reviews ● good ideas are selected through project benchmarking
Retention	<ul style="list-style-type: none"> ● the selected ideas are retained through project benchmarking ● the selected ideas are retained in the project management procedures
Distribution	<ul style="list-style-type: none"> ● the retained ideas are distributed through the project management procedures ● the retained ideas are distributed through the project management community

first person takes and develops into an even better solution for their project.

3. Through the lectures, new ideas are brought into the community from outside. When I have spoken at such events, there has been a mixture of internal and external speakers.

New ideas are also generated through projects reviews. This usually takes place because a problem is identified in the reviews, and the project management team needs to find a solution to that problem, which generates a new idea. It might be that the project management team draws on the project management community to help solve the problem. Benchmarking can also help identify new solutions, in a similar way, by identifying areas where the organization is weak compared to its competitors.

We will see later than top management support is also important in generating new ideas. People often continue to use old ways of working through fear of failure and being blamed if things go wrong. We will discuss competency traps later. People will only try new ideas if they are confident that they will be supported, and the odd mistake accepted, as long as they get it right four times out of five. I used to work for an organization where the attitude was that people don't make profits if they don't take risks, and if they are not making mistakes they are not taking risks. So the odd mistake was tolerated as long as, four times out of five, people came up with profitable, novel solutions. If four times out of five they made mistakes, they were not wanted in the organization.

Selection

Project reviews are also the primary practice through which new ideas are selected. During a project, new ideas will be tried, and in the project reviews the project team can try to identify which new ideas have worked and which have not.

Benchmarking can also help identify where the project has performed better than other projects, or where the organization is performing better than its competitors. If a project team has tried a new idea, and finds that there is an improvement in performance against a related key performance indicator or success criterion, then it may be possible to conclude that the new idea helped achieve that improvement.

The European Construction Institute (based in Loughborough in the UK) and the Construction Industry Institute (based in Austin, Texas) jointly maintain a benchmarking database where it is possible to correlate project management practices and performance against key performance indicators. The networks fostered by Human Systems provide similar data for members of their groups across all industries.

I also suggested last month that, at the higher levels of maturity, the organization should be continuously gathering metrics of project performance, trying to correlate what is done on projects to project performance. The efficacy of new ideas can then be directly tested.

The project management community can also help in the selection of new ideas. New ideas should be properly tested before they are retained in the organization's memory. Ideas can be shared at the quarterly meetings and feedback obtained. Or new roles can be created in the organization with the responsibility of testing and selecting new ideas, but they should be properly tested before retaining them in the corporate memory.

It is human nature that it is not always the best ideas that are selected, but the most appealing. Organizations need to make sure that it is truly the best ideas that are selected.

Retention

New ideas will be retained in the benchmarking database. At the higher levels of maturity, as the organization develops its metrics, it will increasingly understand: which project management practices lead to superior project performance, which have no effect, and which cause inferior performance. But the project management procedures are the primary tool for retaining project management knowledge in the organization. It is through the procedures that the organization captures its best practice.

Distribution

This is the step that is unique to project-based organizations. In the functional organization, people live and work in the functions, where the knowledge is retained. In the project-based organization people are often working away from their home base, or they are more likely to be working in virtual teams. So, when new projects are starting, how do you ensure that people are using the new ideas that deliver superior project management performance?

The project management procedures are the primary tool for distributing knowledge. New project managers and project management apprentices should be trained in the use of the procedures. They represent the retained knowledge of best practice in the organization,

and so all project managers should be working to them. However, remember that every project is different, so a project-specific version of the procedures should be developed for every project, and incorporated into its quality manual.

The project-based organization needs to find ways of regularly updating and distributing the procedures. This will be the role of the project office. But it is important that updates are distributed regularly.

In the 1980s and 1990s, companies would reissue their project management procedures once every four to five years. So there would be a long gap between successful new ideas being identified and those ideas being incorporated into the organizational memory. People now use the Intranet to make new issues available much more frequently. Patches to the procedures can now be issued as soon as they are available by posting them on the Intranet. There are, however, two problems:

- Project managers have to know that the patches are available to use. They need to be kept informed, in some other way, that the updates are available for use. Email and the project management community can be used for that purpose.

- Ideas must be properly tested and shown to be efficacious before being incorporated as updates. Updating the procedures must be done only by approved personnel, who properly test the new ideas before incorporating them. If anyone is allowed to do it, the procedures will become a mess, and will include ideas that represent one person's flight of fancy, but not good project management.

The project management community also has a role in distributing new ideas through:

- sharing ideas at the quarterly meetings
- giving lectures at quarterly meetings to brief people about updates to the procedures
- distributing knowledge by the transfer of people between projects and sites
- courses to update the skills of project managers, arranged by the project office
- consultancy service from the project office to projects in the company.

It sounds easy to achieve but there are barriers that stop organizations succeeding. Next month we will look at the barriers and how to overcome them.



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