
The Art to Select the Appropriate Development Methods for a Project Team: A Case Study

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Abstract:

Purpose: The main purpose of this article is to present how to select the appropriate development methods for a project team in business practice, taking into account the diverse needs of team members and business realities.

Design/Methodology/Approach: The article consists of three parts. The first one covers the characteristics of the specifics of project teamwork and an attempt to define the project team management. The second part concerns the determination of areas, legitimacy and frequency of using development methods, including training, consulting, coaching and mentoring in the work of the project team. In the third part, the author describes practical case studies of using different development methods for the project team in business reality.

Findings: The selection of development methods in a project team should depend on the project team, its specifications and the nature of work. Different project teams and their current needs may require variously matched sets of development methods. However, it is important to diagnose the development needs of project team members on an ongoing basis, both those of a team and individual nature. The key role in this matter is the role of the project manager, team leader or external consultant to carefully examine the needs of the entire team, as well as select development tools, taking into account time, cost optimization and the intended development effects.

Practical Implications: Modern managers should focus on examining the needs of team members and the art of selecting appropriate development methods before planning the development process of a entire team. In case of uncertainty how to choose the appropriate development methods, it is worth using the services of external consultants.

Originality/Value: The concept of the art of selecting appropriate development methods shows that an individual approach is justified in planning team development processes. In addition, it explains the need to consider the perspective of individual team members and organizations in terms of benefits and costs.

Keywords: Project team, development methods, training, coaching, mentoring, consulting, case study method.

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1. Introduction

The growing popularity of project management companies has contributed to the popularization of project management as an extensive field of knowledge with proven methods and the dissemination of the project work system, which resulted in the emergence of a new professional group - project managers and members of the project team.

The following arguments support the attractiveness of working in a project team, project management is a dynamic process of developing solutions that satisfy the client - the principal of the project. What is more, work in a project team includes the curiosity factor, because each implemented project is different – therefore, project manager and the entire team are required to be creative, innovative and have an unconventional approach.

Currently, project management is booming especially in the IT and construction sectors. The real challenge for project teams are large projects, including infrastructure projects of a wide scale, implemented especially in the transport and environmental protection sector, but also in other areas such as energy, education, computerization and culture.

It is certain that the professions related to project management are evolving and will continue to evolve in the future. The American magazine “Fast Company” mentions the equivalent of a project manager of the future - the profession of triber, who will be adapted to the implementation of new, complex projects in large companies. Triber will be able to build a team, as well as lead it properly in order to achieve the goals set out in the project card. People who are able to build long-term relationships with individuals, have a good experience in project management and at the same time have a high level of empathy and the ability to manage both their own and the team's time, will be the best candidates for the role of triber (Rzyman, 2018). According to futurologist Joe Tankersley, the profession of triber may gain popularity at the turn of 2025.

Regardless of the direction in which project management will develop, which we are not able to clearly define, but only set certain development trends, it is important that people responsible for project management consciously develop their competences in this range, constantly educating and consciously using new methods and tools supporting management processes.

2. The Specificity of Managing a Project Team

Each project team is appointed for a specific purpose to implement a project, in accordance with the customer's specifications. A project is a sequence of unique, complex and related tasks, having a common goals, intended to be performed within a specified period of time without exceeding the established budget, in accordance

with the assumed requirements (Wysocki, 2013). The art of running a project consists of skilfully combining deliberately planned, integrated and coordinated activities undertaken in order to achieve a precisely defined goal and obtain specific results (Walczak, 2010). The final effect of the project should be, to some extent a unique product, service or result (Wąsowicz, 2012).

The project is a complex, unique activity, often going beyond the boundaries of the organization and requiring cooperation with other entities, as well as an innovative sense. It is usually carried out by specialists in various fields (Cobb, 2012), which is related to the need for efficient information flow and effective communication.

Summarizing the above considerations, project management is a difficult and complicated process, which consists of the use of knowledge, skills, tools and techniques for forecasting activities that allow the implementation of project assumptions (A Guide ..., 2017). A comprehensive approach to project management defines project management in two ways, first, as a field of theoretical and practical knowledge, and also as a set of managerial skills necessary for effective and efficient project implementation (Trocki, 2012). Many project management experts pay attention to the role of the project manager and define project management as a set of managerial activities necessary to bring the project to a successful completion (Kozarkiewicz, 2012). The above fact highlights the priority aspect of project management: the art of managing a project team.

In the process of a project teamwork, the project manager is a key figure, responsible for both the successes and failures of the project team - that is why it is so important to define the scope of competences necessary for the position of a project manager, as well as to indicate methods of its improvement. The project manager should have systematic knowledge of project management, in particular be familiar with the standard procedure of the project management process, taking into account methodologies, tools and techniques in this area. Subsequently, it is also important to familiarize yourself with the specifications of a given project.

Thus, it may be helpful to use the business experience of predecessors implementing similar projects (Pinto, 2019). It is worth emphasizing, however, that each implemented project is unique in its structure, so it is necessary to use the situational approach in management, which requires being constantly ready to introduce changes at each stage of the project implementation (Smolska *et al.*, 2019).

The work potential of the entire project team may become a source of competitive advantage over other organizations. The most important components of the qualitative work potential of a project team are: knowledge, skills, abilities, attitudes and values, motivation and health. The quantitative dimension of the work potential is determined by the work time of each team member - the amount of time that the team is able to spend on a specific project (Stabryła, 2012).

An important feature of the project team is also its interdisciplinarity. The project team consists of people with various specializations, which means that team members complement each other with their knowledge and experience (Pawlak, 2006). The secret of the success of the best project teams lies in the process of selection the right people and apparently, the more complex the project and the less known about the solution, the more the best specialists are needed in the project team (Wysocki, 2013).

According to the IPMA Competency Baseline, one of the models of raising competency in project management, defining the competences required from people working in the field of project, program and portfolio management, three areas of competences are distinguished, depending on their specificity (IPMA, 2019):

1. *'Perspective' competences*: define contextual skills and knowledge to provide some foundation in the broadly understood project, program or portfolio environment;
2. *Competences in the area of 'People'*: define the personal and interpersonal competences required to participate effectively and/or lead a project, program or portfolio;
3. *Competences in the area of 'Practice'*: define the technical aspects of project, program and portfolio management.

Work in a project team requires constant improvement of competences, hence the important role of not only thematic trainings in the area of project management, but also another development methods, coaching, mentoring and consulting services. The selection of appropriate development methods at individual stages of maturity of project team members is crucial and strictly depends on the individual requirements of each unit included in the project team.

3. Educational Matrix as a Useful Tool in the Process of Selecting the Right Development Methods

Business practice shows that the view on the use of training, coaching, mentoring and consulting methods is as different as the attitudes of managers, leaders and project managers to these forms of intervention, based mainly on their experience and willingness to experiment with new methods and techniques. It happens that development tools, despite the incurred financial outlays and working time, do not bring the expected, measurable effects, and sometimes even worsen the situation.

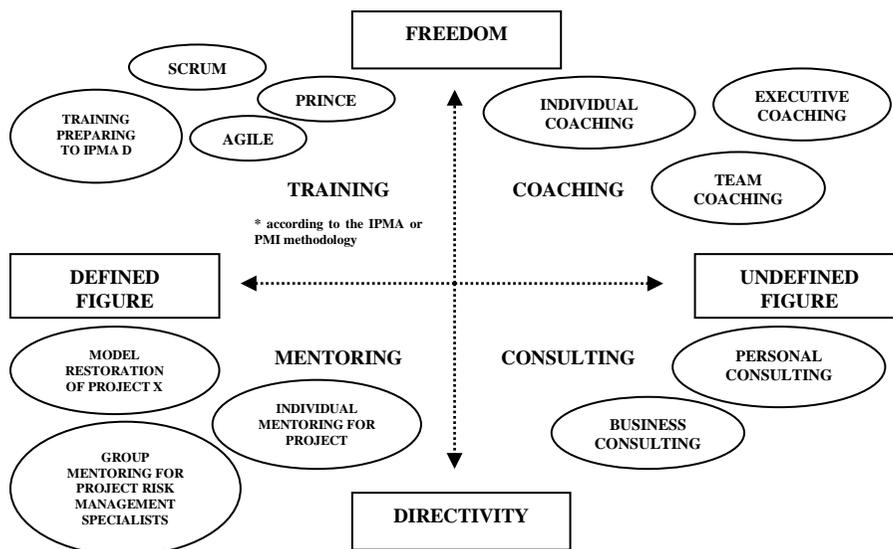
Then the question occurs, what is the reason for this state of affairs, often blaming the purchased development service for the lack of effects, and sometimes the trainer, coach, mentor or employees subjected to development methods. However, the truth is quite different, the most common reason for this situation is that the development tool is not adapted to the needs of an individual, team or organization. The

educational matrix is a useful tool thanks to which we are able to find a solution to what development methods we need, after giving an answer the following questions:

1. *Do we know what we want to achieve as a result (defined or undefined figure)?*
2. *How do we want to get the results (do we want to have an unlimited freedom and do it ourselves or take advantage of someone else's experience)?*

Figure 1 shows an educational matrix adapted to the specifics of work in a project team.

Figure 1. Educational matrix for the project team



Source: Based on Bennewicz, 2017.

The educational matrix allows for accurate and quick depiction of the methods used in the development of adults. Its framework is determined by the axes of: development methodology, procedures and algorithms as well as the course of learning, development and change processes (Bennewicz, 2017).

4. Premises, Validity and Frequency of Using Development Methods

Business practice shows that at the beginning of a professional career in projects, it is important to acquire the so-called hard competences (knowledge and skills in the field of project management) that enable training. For example, a young adult in the art of project management joins the training to obtain the IPMA D certificate. The training enables the person participating in it to acquire specific competences based on a certain model consistent with the IPMA methodology (IPMA, 2019). Both the method of transferring and consolidating knowledge, skills and competences, leaves

a lot of freedom for the trainer and the trainee, while the trainee is fully responsible for using the acquired knowledge in business practice.

Mentoring is understood as ready-made procedures and algorithms connected with a defined, quite clearly outlined method of learning (Chopra *et al.*, 2019). It can be used at the stage of implementation of newly hired employees for the project team. A team mentor (assigned to a group of mentees) guides them through a strictly defined procedure (implementation algorithm). The mentee's task is to fully comply with the mentor, follow all the recommendations and orders. The key to success in mentoring is a directive character of the mentor who, through commitment and willingness to transfer know-how, shows the specificity of work in a given company.

The main advantages of team mentoring include, shortening the implementation process, faster adaptation of new members of the project team and the transfer of specialist knowledge and experience while working in a specific team project (Rolfe, 2020). The most popular applications of mentoring are those accompanying the succession process in the company, during which an experienced master provides secret knowledge about strategic projects from the point of view of a given company or even industry.

Consulting is a development method in which directive choices are made as to the method of conduct, while the actions leading to the result are completely unstructured and free (Kavanaugh, 2018). The consultant (advisor) gives us tools and options (also indicates which option is the best), but ultimately the decision whether, when and how we will implement the X project (which option we will choose) is up to us and our team. To sum up, the advisor provides us with specialist knowledge and advice, but does not provide a ready-made solution.

Coaching is a method that leaves the greatest potential for freedom and own creativity in searching for a way to a solution. Whitmore (1992) defines coaching as 'an unlocking a persons' potential to maximize their own performance'. According to the International Coach Federation, coaching is 'a professional partnership between a qualified coach and an individual or team that support the achievement of extra-ordinary results, based on goals set by the individual or team' (ICF, 2020). In a situation when we are dealing with an individual decrease in motivation, commitment or effectiveness, individual coaching is the best solution.

Executive coaching is a special type of individual coaching, addressed to middle and senior managers, the purpose of which is to release managerial potential and stimulate motivation to raise qualifications in this area. Team coaching is an interactive process focusing on areas and goals relevant to the entire team. Its essence is that team members take responsibility for the team as a whole, for achieving common goals and values (Clutterbuck *et al.*, 2019). In this context, team coaching can be seen as 'a comprehensive and systemic approach to supporting the

team in order to maximize its collective talent and other resources enabling the effective performance of the team's work' (Carr and Peters, 2013).

According to Hawkins (2011), team coaching cannot be limited to a one-day intervention in matters within the team, it should cover important processes such as team building, facilitation and other team intervention processes. The rationale for using team coaching may be different. First of all, team coaching can be a form of intervention when the team 'goes wrong' in order to identify and overcome conflicts, blockages, improve team management or change the organizational culture of the company. Secondly, team coaching is often essential in the process of creating a new team or merging teams: it helps define the roles of individual members of a project team, and also strengthens a sense of team identity by formulating common goals and values.

Thus, coaching tools have a positive impact on the process of getting to know each other by team members and help to efficiently guide the team through various stages of team maturity. Moreover, team coaching is a tool supporting strategic processes in the company, it helps to formulate or reformulate (in the process of changing the organization) a vision, mission, strategy, it can be used as a system tool in the organization to increase operational efficiency, as well as inspire the team to implement changes of systemic importance (Clutterbuck *et al.*, 2019).

5. Case Studies of Using Development Methods in Business Practice

Case study 1:

The team Z of a company operating in the logistics industry for 3 years, have carried out various types of projects. The so-called 'old team members' were aware of their strengths and weaknesses, which had a positive impact on the company's financial results.

However, recently one of the people responsible for financial issues related to the settlement of projects fell seriously ill and went on a long sick leave. For this reason, a new person with appropriate qualifications and experience was hired. The team leader conducted a series of three ad hoc coaching sessions to include a new employee to the team. The welcome of the new team member took place in an extremely warm atmosphere and there were no signs of acclimatization in the team.

Problems with settling financial issues on time were identified within two months of hiring a new member. The accounting department also identified errors in settlements and withdrew all project documentation for re-analysis, which significantly delayed the implementation of the current project and the acceptance of new project orders. This had a negative effect on the morale of the team and on the overall working atmosphere.

Diagnosis:

After interviewing the team members, the project manager stated that the cause of the recent failures and delays was not the recruitment of a new employee to the team, but rather financial errors due to a lack of knowledge of the logistics industry. So far, the newly hired person only accounted for IT projects and did not know the specifics of the logistics industry, as well as implemented projects. At the implementation stage, no specialist training took place, because there was no person in the team who would have knowledge about settlements and would be able to transfer it quickly. It was therefore recommended a 2-month internal mentoring under the supervision of a financial specialist from team X, implementing the same type of logistics projects as team Z.

Case study 2:

In order to implement a three-year internship project for students, a team consisting of research and teaching staff was established. Generally, there was a positive atmosphere in the team and a certain division of tasks, but after six months of the project implementation, no visible results of the team's work were noticed, which stimulated the project manager to think and discover the causes of the team's failures.

Diagnosis:

After interviews with team members, the project manager came to the conclusion that the failure was caused by the specific approach to the project. Each of the employees was obliged to perform other activities as basic and treated the above-mentioned project as a so-called additional task, in line with the assumption: 'now there are more important orders to be performed', which meant postponing the tasks directly related to the internship project implementation to a later date.

In addition, the interview showed the lack of a shared vision of the project and poorly understood goals related to the implementation of the internship project, as well as a general low identification in terms of the team (some members could not even name the composition of the 5-person project team). The project manager decided to use team coaching tools. Coaching sessions were conducted by an internal trainer employed in the career office of a given research unit. The following goals were defined in the team coaching process:

0. Introduction session: Coach, after getting acquainted with the whole team, explained what team coaching is. After jointly establishing the rules of cooperation, coaching contracts were signed by each of the team members (including the leader) for participation in the coaching process. Discussing the principles of partnership and defining goals for the entire coaching process.

1. Session: Team integration, getting to know each other, analyzing roles and mapping the strengths and weaknesses of the individual members of the project team.

2. *Session:* Building the team's identity and awareness, identifying common values, vision, mission and strategic goals of the project.
3. *Session:* Identifying specific roles in project and assigning tasks/responsibilities to individual roles. Defining the so-called milestones of the project.
4. *Session:* Monitoring the progress of the implementation of individual tasks (number of sessions: 4-8, depending on the team's needs).

Sessions 0-3 were conducted with high intensity, within the first two weeks after diagnosis of the team situation. Additionally, during sessions 1-2 coach identified the need for individual sessions of two members of the project team. The internal coach has also conducted additional meetings with the project manager in order to give an instructions how to use the coaching tools at the stage of monitoring the project implementation.

Case study 3:

A sudden decrease in the motivation of the 6-person team responsible for the performance of an implementation project in the IT industry (average age in the team 37+) after hiring three new team members, much younger than the current team members.

Diagnosis:

After observations and talks with the employees of the project team, the team leader came to the conclusion that, unfortunately, the newly hired employees have fundamental competence shortages in the field of performance of implementation projects, which negatively affects the work of the entire team. In addition, the team is not harmonious - there is a division into 'the old and new crew', which has a negative impact on the communication process in the team.

First of all, two new employees completed a 3-month external training in basic methods and techniques for the performance of implementation projects, as well as in the field of implementations in the IT sector. At the same time, communication shortcomings and divisions in the team meant that the entire team was subjected to a team coaching process in the scope of:

0. *Introduction session:* Coach, after getting acquainted with the whole team, explained what team coaching is. After jointly establishing the rules of cooperation, coaching contracts were signed by each of the team members (including the leader) for participation in the coaching process. Discussing the principles of partnership and defining goals for the entire coaching process.

1. *Session:* Team integration, getting to know each other, analyzing roles and mapping the strengths and weaknesses of the individual members of the project team.

2. *Session:* Building the team's identity and awareness, identifying common values

3. *Session:* Working on the preparation of the vision, mission and strategic goals of the project.

4. *Session*: Identifying specific roles in project and assigning tasks/responsibilities to individual roles. Defining the so-called milestones of the project.
5 – 7. *Sessions*: Monitoring the progress of the implementation of individual tasks.

Sessions 0-4 were conducted within the first three weeks of diagnosis of the team's situation. During sessions 1-2 coach identified the need for individual sessions of three members of the project team. The internal coach has also conducted additional meetings with the project manager in order to give an instructions how to use the coaching tools at the stage of monitoring the project implementation.

6. Conclusions

Summarizing the previous considerations, the diagnosis of the needs of individual team members is a key stage in the process of selection the appropriate methods of development, and at the same time an important determinant of the team's success. The person responsible for its performance is the project manager or team leader. The key role in this process is to present the balance of benefits of a given development method, as well as a specific action plan, defining the frequency of given development interventions. Moreover, it should also be remembered that it is necessary to obtain approval of the application of a given development method by the direct beneficiaries.

The selection of development methods for a project team should be strictly dependent on the project team itself, its specifications and the nature of its work. It is important to emphasize that the situational approach works well in the process of selecting development methods, which in practice means that different project teams may need different development methods. It should be remembered that there are no ready recipes for their proper selection, just like there are no two identical teams.

However, it is important to diagnose the development needs of project team members on an ongoing basis, both those of a team and individual nature, also taking into account time and cost optimization as well as the intended development effects.

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