

9.4 DEVELOP TEAM

Develop Team is the process of improving competencies, team member interaction, and the overall team environment to enhance project performance. The key benefit of this process is that it results in improved teamwork, enhanced interpersonal skills and competencies, motivated employees, reduced attrition, and improved overall project performance. This process is performed throughout the project.

The inputs, tools and techniques, and outputs of the process are depicted in Figure 9-10. Figure 9-11 depicts the data flow diagram for the process.

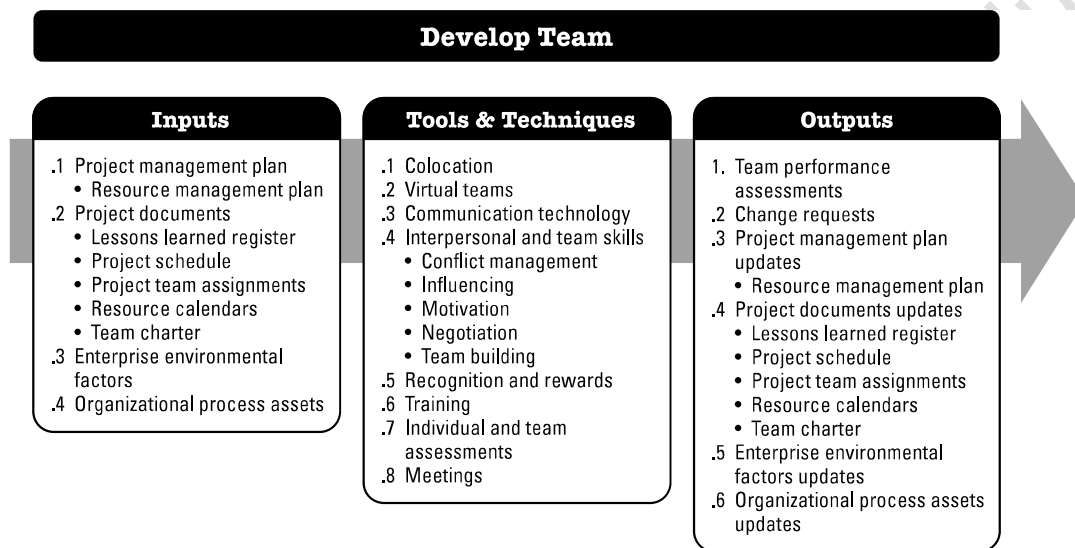


Figure 9-10. Develop Team: Inputs, Tools & Techniques, and Outputs

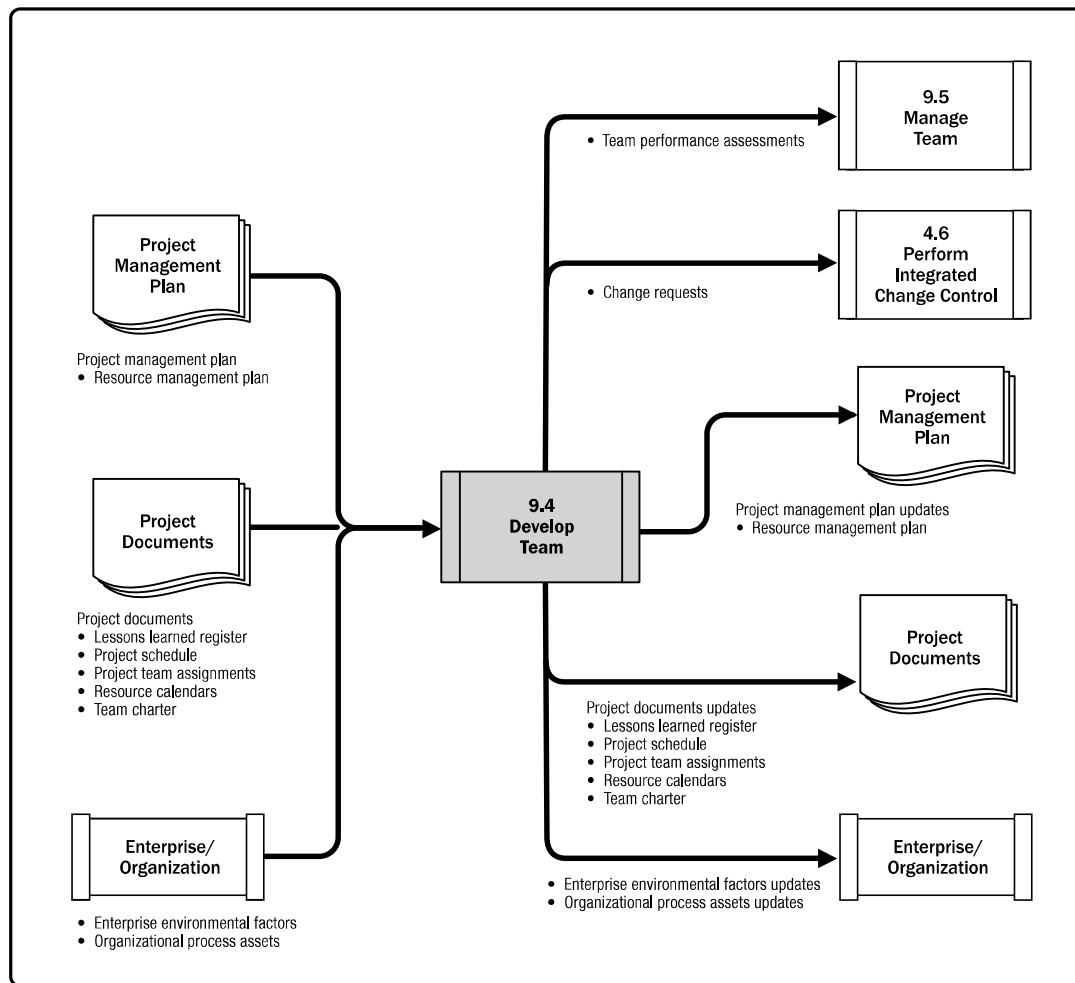


Figure 9-11. Develop Team: Data Flow Diagram

Project managers require the skills to identify, build, maintain, motivate, lead, and inspire project teams to achieve high team performance and to meet the project's objectives. Teamwork is a critical factor for project success, and developing effective project teams is one of the primary responsibilities of the project manager. Project managers should create an environment that facilitates teamwork and continually motivates the team by providing challenges and opportunities, providing timely feedback and support as needed, and recognizing and rewarding good performance. High team performance can be achieved by employing these behaviors:

- ◆ Using open and effective communication,
- ◆ Creating team-building opportunities,
- ◆ Developing trust among team members,
- ◆ Managing conflicts in a constructive manner,
- ◆ Encouraging collaborative problem solving, and
- ◆ Encouraging collaborative decision making.

Project managers operate in a global environment and work on projects characterized by cultural diversity. Team members often have diverse industry experience, communicate in multiple languages, and sometimes work with a “team language” or cultural norm that may be different from their native one. The project management team should capitalize on cultural differences, focus on developing and sustaining the project team throughout the project life cycle, and promote working together interdependently in a climate of mutual trust. Developing the project team improves the people skills, technical competencies, and overall team environment and project performance. It requires clear, timely, effective, and efficient communication between team members throughout the life of the project. Objectives of developing a project team include but are not limited to:

- ◆ Improving the knowledge and skills of team members to increase their ability to complete project deliverables, while lowering costs, reducing schedules, and improving quality;
- ◆ Improving feelings of trust and agreement among team members to raise morale, lower conflict, and increase teamwork;
- ◆ Creating a dynamic, cohesive, and collaborative team culture to: (1) improve individual and team productivity, team spirit, and cooperation; and (2) allow cross-training and mentoring between team members to share knowledge and expertise; and
- ◆ Empowering the team to participate in decision making and take ownership of the provided solutions to improve team productivity for more effective and efficient results.

One of the models used to describe team development is the Tuckman ladder [19, 20], which includes five stages of development that teams may go through. Although it is common for these stages to occur in order, it is not uncommon for a team to get stuck in a particular stage or regress to an earlier stage. Projects with team members who worked together in the past might skip a stage.

- ◆ **Forming.** This phase is where the team members meet and learn about the project and their formal roles and responsibilities. Team members tend to be independent and not as open in this phase.
- ◆ **Storming.** During this phase, the team begins to address the project work, technical decisions, and the project management approach. If team members are not collaborative or open to differing ideas and perspectives, the environment can become counterproductive.
- ◆ **Norming.** In this phase, team members begin to work together and adjust their work habits and behaviors to support the team. The team members learn to trust each other.
- ◆ **Performing.** Teams that reach the performing stage function as a well-organized unit. They are interdependent and work through issues smoothly and effectively.
- ◆ **Adjourning.** In this phase, the team completes the work and moves on from the project. This typically occurs when staff is released from the project as deliverables are completed or as part of the Close Project or Phase process.

The duration of a particular stage depends upon team dynamics, team size, and team leadership. Project managers should have a good understanding of team dynamics in order to move their team members through all stages in an effective manner.

9.4.1 DEVELOP TEAM: INPUTS

9.4.1.1 PROJECT MANAGEMENT PLAN

Described in Section 4.2.3.1. Project management plan components include but are not limited to the resource management plan. Described in Section 9.1.3.1, the resource management plan provides guidance on providing project team member rewards, feedback, additional training, and disciplinary actions as a result of team performance assessments and other forms of project team management. The resource management plan may include also the team performance assessment criteria.

9.4.1.2 PROJECT DOCUMENTS

Project documents that can be considered as inputs for this process include but are not limited to:

- ◆ **Lessons learned register.** Described in Section 4.4.3.1. Lessons learned earlier in the project with regard to developing the team can be applied to later phases in the project to improve team performance.
- ◆ **Project schedule.** Described in Section 6.5.3.2. The project schedule defines how and when to provide training to the project team and develop the competencies required at different phases. It identifies the need for team development strategies based on variations, if any, during the project execution.
- ◆ **Project team assignments.** Described in Section 9.3.3.1. Project team assignments identify the team and member roles and responsibilities.
- ◆ **Resource calendars.** Described in Section 9.2.1.2. Resource calendars identify times when the project team members can participate in team development activities. It also helps illustrate team availability during the entire project.
- ◆ **Team charter.** Described in Section 9.1.3.2. The team charter is where the team operating guidelines are documented. The team values and operating guidelines provide the structure that describes how the team will operate together.

9.4.1.3 ENTERPRISE ENVIRONMENTAL FACTORS

The enterprise environmental factors that can influence the Develop Team process include but are not limited to:

- ◆ Human resource management policies regarding hiring and termination, employee performance reviews, employee development and training records, and recognition and rewards;
- ◆ Team member skills, competencies, and specialized knowledge; and
- ◆ Geographic distribution of team members.

9.4.1.4 ORGANIZATIONAL PROCESS ASSETS

The organizational process assets that can influence the Develop Team process include but are not limited to historical information and the lessons learned repository.

9.4.2 DEVELOP TEAM: TOOLS AND TECHNIQUES

9.4.2.1 COLOCATION

Colocation involves placing many or all of the most active project team members in the same physical location to enhance their ability to perform as a team. Colocation can be temporary, such as at strategically important times during the project, or can continue for the entire project. Colocation strategies can include a team meeting room, common places to post schedules, and other conveniences that enhance communication and a sense of community.

9.4.2.2 VIRTUAL TEAMS

The use of virtual teams can bring benefits such as the use of more skilled resources, reduced costs, less travel and relocation expenses, and the proximity of team members to suppliers, customers, or other key stakeholders. Virtual teams can use technology to create an online team environment where the team can store files, use conversations threads to discuss issues, and keep a team calendar.

9.4.2.3 COMMUNICATION TECHNOLOGY

Described in Section 10.1.2.3. Communication technology is important in addressing the team development issues in colocated and virtual teams. It helps build a harmonious environment for the colocated team and a better understanding for the virtual team, especially those working in different time zones. Examples of communication technology that may be used are:

- ◆ **Shared portal.** A shared repository for information sharing (e.g., website, collaboration software or intranet) is effective for virtual project teams.
- ◆ **Video conferencing.** Video conferencing is an important technique for effective communication with virtual teams.
- ◆ **Audio conferencing.** Communication within a team using audio conferencing is another technique to build rapport and confidence within virtual teams.
- ◆ **Email/chat.** Regular communications using email and chat is also an effective technique.

9.4.2.4 INTERPERSONAL AND TEAM SKILLS

Interpersonal and team skills that can be used for this process include but are not limited to:

- ◆ **Conflict management.** Described in Section 9.5.2.1. The project manager needs to resolve conflicts in a timely manner and in a constructive way in order to achieve a high-performing team.
- ◆ **Influencing.** Described in Section 9.5.2.1. An influencing skill used in this process is gathering relevant and critical information to address important issues and reach agreements while maintaining mutual trust.
- ◆ **Motivation.** Motivation is providing a reason for someone to act. Teams are motivated by empowering them to participate in decision making and encouraging them to work independently.
- ◆ **Negotiation.** Described in Section 12.2.2.5. Negotiation among team members is used to reach consensus on project needs. Negotiation can build trust and harmony among the team members.
- ◆ **Team building.** Team building is conducting activities that enhance the team's social relations and build a collaborative and cooperative working environment. Team building activities can vary from a 5-minute agenda item in a status review meeting to an offsite, professionally facilitated event designed to improve interpersonal relationships. The objective of team-building activities is to help individual team members work together effectively. Team-building strategies are particularly valuable when team members operate from remote locations without the benefit of face-to-face contact. Informal communication and activities can help in building trust and establishing good working relationships. While team building is essential during the initial stages of a project, it should be a continuous process. Changes in a project environment are inevitable, and to manage them effectively, a continuous or renewed team-building effort may be applied. The project manager should continually monitor team functionality and performance to determine if any actions are needed to prevent or correct various team problems.

9.4.2.5 RECOGNITION AND REWARDS

Part of the team development process involves recognizing and rewarding desirable behavior. The original plan for rewarding people is developed during the Plan Resource Management process. Rewards will be effective only if they satisfy a need that is valued by that individual. Reward decisions are made, formally or informally, during the process of managing the project team. Cultural differences should be considered when determining recognition and rewards.

People are motivated when they feel they are valued in the organization and this value is demonstrated by the rewards given to them. Generally, money is viewed as a tangible aspect of any reward system, but intangible rewards could be equally or even more effective. Most project team members are motivated by an opportunity to grow, accomplish, be appreciated, and apply their professional skills to meet new challenges. A good strategy for project managers is to give the team recognition throughout the life cycle of the project rather than waiting until the project is completed.

9.4.2.6 TRAINING

Training includes all activities designed to enhance the competencies of the project team members. Training can be formal or informal. Examples of training methods include classroom, online, computer-based, on-the-job training from another project team member, mentoring, and coaching. If project team members lack the necessary management or technical skills, such skills can be developed as part of the project work. Scheduled training takes place as stated in the resource management plan. Unplanned training takes place as a result of observation, conversation, and project performance appraisals conducted during management of the project team. Training costs could be included in the project budget or supported by the performing organization if the added skills may be useful for future projects. It may be performed by in-house or by external trainers.

9.4.2.7 INDIVIDUAL AND TEAM ASSESSMENTS

Individual and team assessment tools give the project manager and the project team insight into areas of strengths and weaknesses. These tools help project managers assess team members' preferences, aspirations, how they process and organize information, how they make decisions, and how they interact with people. Various tools are available such as attitudinal surveys, specific assessments, structured interviews, ability tests, and focus groups. These tools can provide improved understanding, trust, commitment, and communications among team members and facilitate more productive teams throughout the project.

9.4.2.8 MEETINGS

Meetings are used to discuss and address pertinent topics for developing the team. Attendees include the project manager and the project team. Types of meetings include but are not limited to project orientation meetings, team-building meetings, and team development meetings.

9.4.3 DEVELOP TEAM: OUTPUTS

9.4.3.1 TEAM PERFORMANCE ASSESSMENTS

As project team development efforts such as training, team building, and colocation are implemented, the project management team makes formal or informal assessments of the project team's effectiveness. Effective team development strategies and activities are expected to increase the team's performance, which increases the likelihood of meeting project objectives.

The evaluation of a team's effectiveness may include indicators such as:

- ◆ Improvements in skills that allow individuals to perform assignments more effectively,
- ◆ Improvements in competencies that help team members perform better as a team,
- ◆ Reduced staff turnover rate, and
- ◆ Increased team cohesiveness where team members share information and experiences openly and help each other to improve the overall project performance.

As a result of conducting an evaluation of the team's overall performance, the project management team can identify the specific training, coaching, mentoring, assistance, or changes required to improve the team's performance. This should also include identifying the appropriate or required resources necessary to achieve and implement the improvements identified in the assessment.

9.4.3.2 CHANGE REQUESTS

Described in Section 4.3.3.4. If change requests occur as a result of carrying out the Develop Team process or if recommended corrective or preventive actions impact any of the components of the project management plan or project documents, the project manager needs to submit a change request and follow the Perform Integrated Change Control process as defined in Section 4.6.

9.4.3.3 PROJECT MANAGEMENT PLAN UPDATES

Any change to the project management plan goes through the organization's change control process via a change request. Components that may require a change request for the project management plan include but are not limited to the resource management plan, as described in Section 9.1.3.1.

9.4.3.4 PROJECT DOCUMENTS UPDATES

Project documents that may be updated as a result of carrying out this process include but are not limited to:

- ◆ **Lessons learned register.** Described in Section 4.4.3.1. The lessons learned register is updated with information on challenges encountered and how they could have been avoided as well as approaches that worked well for the development of the team.
- ◆ **Project schedule.** Described in Section 6.5.3.2. Activities to develop the project team may result in changes to the project schedule.
- ◆ **Project team assignments.** Described in Section 9.3.3.1. When team development results in changes to agreed-upon assignments, these changes are recorded in the project team assignments documentation.
- ◆ **Resource calendars.** Described in Section 9.2.1.2. Resource calendars are updated to reflect the availability of resources for the project.
- ◆ **Team charter.** Described in Section 9.1.3.2. The team charter may be updated to reflect changes to agreed-upon team operating guidelines that result from team development.

9.4.3.5 ENTERPRISE ENVIRONMENTAL FACTORS UPDATES

Enterprise environmental factors that are updated as a result of the Develop Project Team process include but are not limited to:

- ◆ Employee development plan records, and
- ◆ Skill assessments.

9.4.3.6 ORGANIZATIONAL PROCESS ASSETS UPDATES

Organizational process assets that are updated as a result of the Develop Team process include but are not limited to:

- ◆ Training requirements, and
- ◆ Personnel assessment.