The launch of Healthcare.gov in 2013 was such a failure that it nearly ended the Affordable Care Act. The Obama administration was “running the biggest start-up in the world, and they didn’t have anyone who had run a start-up, or even run a business” said David Cutler, health adviser to President Obama’s 2008 campaign. To explain how poorly the website was originally designed, on Healthcare.gov’s first day online, only six people were able to use the site to successfully sign up for health insurance. However, the large-scale failure pushed the administrative team to create a new initiative—the Marketplace Lite team (MPL), composed of an elite and diverse group of designers and developers from different tech companies. Their mission? Rescue the website from expensive contractors and bureaucratic mismanagement. The MPL team spent months rewriting critical code infrastructure for the Healthcare.gov website. Guided by a start-up culture, the team lived and worked together in a nondescript suburban home in Maryland. More often than not, the MPL team butted heads with the government’s bureaucratic project managers who were alarmed when the work schedule changed or if one feature of the website was dropped in exchange for fixing a more critical feature. The MPL team had a different view of the project than the government team; the MPL team saw glitches and bugs not as roadblocks, but as details that could be fine-tuned once the whole website code structure was stable. In the fall of 2014, the new Healthcare.gov website rolled out with much greater efficiency—down from 76 pages of forms, to just 16. Eighty-five percent of all users were able to get through the forms to a successful insurance purchase (compared to only 55 percent in the first version). The MPL team also slashed costs on the log-in page: down from a fixed cost of $250 million + $70 million yearly maintenance to a lean $4 million to build and $1 million to maintain per year.¹

The story of the MPL team turnaround involves selecting the right goal, choosing the right people, and developing a process. In this chapter, we focus on how to build effective teams from the ground up. The starting point presumes that the manager has determined that teams are necessary to do the work required. For expositional purposes, we take the point of view of the manager when we discuss building the team. However, all of our messages can be extended to the team members themselves (as in the case of self-managing and self-designing teams). There are three key responsibilities involved in team design: defining the goal, selecting team members, and managing the team process.

**TEAM DESIGN**

Contrary to popular wisdom, it is more important to have a well-designed team than a team with a good leader. In an intensive study of customer service teams at Xerox with team sizes ranging from 3 to 12 people, well-designed teams were more successful on a number of key organizational effectiveness criteria—assuming collective responsibility, monitoring their own performance, managing their own task strategies, and customer approval—than were poorly designed teams. Poorly designed teams, even under good leadership, were significantly less effective. In the case of Xerox, team effectiveness was judged by supervisors as well as customers, thus providing a comprehensive view of team effectiveness. Once it is determined that a team is desirable for the work and viable within the organization, the manager must then focus intently on three aspects: defining the goal, selecting the team, and managing the process.

**DEFINE THE GOAL**

By definition, teams are goal-directed entities. However, many teams fail to make explicit plans or develop performance strategies. Those that do, however, usually perform better, especially when the appropriate performance strategy is not obvious. For example, when surgical teams follow a checklist, patient-mortality rates are cut almost in half and complications reduce by more than a third.

**ENDS vs. MEANS**

An analysis of teams at Xerox revealed two common errors when it came to goal setting: Some teams failed to set any direction at all, and some teams set a direction that focused exclusively on means (the how) but did not specify the ends (the why). The first error occurs when teams assume that everyone knows why they are there and the team is

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4Ibid.


launched into action without a thoughtful discussion of the purpose. The second error occurs when there is excessive focus on how a team should function.

Team goals should: (1) be clear and simple, and (2) specify ends but not means. In terms of clear and simple, the best team mission statements contain only a few objectives. Those objectives orient the team and allow members to make thoughtful decisions. For example successful teams at Xerox continually referred to their goals when making tough decisions: “Would this action please the customer and would it do so without excessive cost to Xerox?” A large-scale meta-analysis of teams revealed that specific, difficult goals yield considerably higher team performance compared with nonspecific goals. Successful teams specify their ends but not the means. Their mission statement is clear about the team’s purpose but does not prescribe the steps on how the team should get there.

**Performance vs. Learning Goals**

Some team members have a high-performance orientation, whereas other team members have a high-learning orientation. A performance orientation reflects a desire to gain favorable judgments of performance or avoid negative judgments of competence. A learning orientation reflects the desire to understand something novel or to increase competence in a task. For example, Procter and Gamble has a “heroic failure award,” TATA has a “dare to try award,” video gaming company Supercell opens a bottle of bubbly when a game fails, and innovation lab, Google X rewards their teams for failure because it encourages innovation, improves engagement, and provides valuable learning opportunities. In one investigation, the effectiveness of performance and learning orientations was examined. Halfway through a 3-hour simulation in which teams needed to make a series of decisions, their communication channel began to deteriorate. To perform effectively, teams needed to adapt their roles. Teams with difficult goals and a high-performance orientation were the least able to adapt. Teams with difficult goals and a high-learning orientation were most likely to adapt. Moreover, cultural diversity is more positive for team performance when team members’ learning orientation is high and performance avoidance orientation is low. Learning goals focus groups on strategic processes, and indeed, groups with learning goals discuss more strategic information and report greater satisfaction with performance than do performance-goal

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7Ibid.
8Ibid.
groups. Teams are most effective when they have a high-learning orientation coupled with high team identification because this allows them to form more accurate team goal mental models and effectively plan their process. In another investigation, teams were assigned one of three types of goals (specific learning, general “do your best” learning, and specific performance). Teams with specific learning goals performed worse than did teams with general “do your best” learning goals or specific performance goals.

A performance-prove goal orientation drives people to outperform others. For example, teams at Thomson Reuters compete for a “catalyst fund”—a pool of money for internal innovation. And teams at the U.S. Department of Health and Human Services compete in innovation contests in which each team is seeded with $5,000 to design a prototype to be judged by senior officials. One winning idea was software for tuberculosis screening trucks in Kenya which instantly assesses the risk level of patients and provides a searchable database for genetic information. A performance-prove goal orientation motivates team performance more when people are identified with their team but motivates individual performance more when people are less identified with their team.

**Promotion vs. Prevention Goals**

Two key types of chronic goals are promotion goals, in which a person attempts to achieve desired positive outcomes and prevention goals, in which a person attempts to avoid negative outcomes. People experience regulatory fit when they pursue a goal in a way that aligns with their chronic goal orientation. A study of table football players revealed that team members whose goal orientation (promotion vs. prevention) was aligned with their role (offense vs. defense positions) were more successful.

**Goal Fit**

Goal fit refers to the congruence between group members and the group with respect to the goals. A high goal fit occurs when the members have shared goals and collectively pursue those goals. The positive affect exhibited by leaders and team members is

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a positive predictor of group-level goal fit. A study of 96 work teams revealed that group-level goal fit leads to better group performance.\(^{21}\)

**PRE-PLANNING vs. ON-LINE PLANNING**

Planning in teams is important for effectively pursuing goals. Planning is the development of alternative courses of action for the accomplishment of a mission or goal.\(^{22}\) One type of planning is *task-focused* and another is *team-focused*.\(^{23}\) *Taskwork* focuses on work goals and task-specific performance requirements; in contrast, *teamwork* focuses on interpersonal interaction requirements and team member capabilities.\(^{24}\)

It is useful to distinguish *preplanning* (planning before actually performing the task) and *online planning* (planning during the task itself).\(^{25}\) Teams permitted to plan *between* periods of task completion perform better than those that plan only *during* periods of task completion or do not have opportunities to discuss and develop plans.\(^{26}\) In one investigation, the efficacy of four different “team aids” for articulating and representing knowledge in teams were tested: individual clipboards, team checklists, team clipboards, and a control condition with no clipboards or checklists. Teams were challenged with a complex task of target identification in a military operation in which a target could be peaceful or hostile, military or civilian, and approached by air, surface, or submarine. Team aids (i.e., team checklists and team clipboards) enhanced team performance more than individual aids (i.e., individual clipboards).\(^{27}\)

**TIMELINES AND TIME PRESSURE**

Differences in how members think about time can dramatically affect team process and outcomes. Consider four time-based individual differences: time urgency, time perspective, polychronicity (doing several unrelated tasks at one time), and pacing style.\(^{28}\) Perceived urgency or time pressure positively affects performance when teams have strong temporal leadership, such that they manage the time-related aspects of their work.


A field study of 111 project teams found that perceived time pressure positively affected performance when the team was under strong temporal leadership. And, a study of 71 teams in a business process outsourcing firm revealed that leaders who are able to manage diversity in terms of team members’ temporal styles had better performing teams as compared to leaders who take a weaker role in managing such temporal style differences. Moreover, shared temporal cognition reduced the negative effects of polychronicity diversity on team performance and exerted a strong, positive effect on overall team performance.

How much time should a group devote to completing its work? A typical response might be “as long as it takes.” This answer is neither good nor practical. When a work group is given a specific amount of time to do a job, its members adjust their behavior to “fit” whatever time is available. When time is scarce, team members work harder, worry less about the quality of their output, and focus on the task rather than social or emotional issues. However, if more time becomes available, these employees continue to work as though time was still scarce, rather than relaxing. Thus, it is important to properly manage how teams are initially introduced to their tasks. For example at Microsoft, teams deliver code on tight schedules by assembling people into hundreds of teams of 10 to 12 people, working in 3 week work sprints. Using cloud-based collaboration tools, teams communicate directly with customers and other teams.

Consider an investigation in which three groups were evaluated according to their ability to solve puzzles. Each group had a different task load (completing 20, 40, or 80 anagrams), time limit (5, 10, or 20 minutes), and group size (1, 2, or 4 persons). Each group had three work periods. The task load remained the same for all periods for any given group, but the time interval increased, decreased, or remained constant. Groups of all sizes, and over all possible time intervals, solved more anagrams per member-minute the higher the assigned task load; groups of any size and for any given task load solved more anagrams per member-minute the shorter the time limit; and for any given load and time limit, productivity was higher the smaller the size of the group. Thus, the more the work load per member-minute, the more work gets done. The point is clear: Teams adapt themselves to the constraints presented to them, such as the amount of time they have to perform a task.

Not only is team performance susceptible to arbitrary “norming” cues, but team communication and interaction and some aspects of product quality are also affected.

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by these factors.\textsuperscript{34} For example, short time limits on an initial task induce teams to spend more time on task-oriented behaviors and less time on interpersonal interaction, whereas teams with a longer time period engage in more interpersonal interactions.

**CAPACITY PROBLEMS VS. CAPABILITY PROBLEMS**

Consider two kinds of problems related to this issue: capacity problems and capability problems.\textsuperscript{35} **Capacity problems** occur when there is not enough time to do all of the required tasks, although each task is easy. **Capability problems** occur when the task is difficult, even though there is plenty of time in which to do it. Capacity problems lead to a faster rate of task activity on subsequent trials regardless of the actual time limits set for those later trials; capability problems lead to more extensive processing of information, hence a slower rate of production on subsequent trials regardless of the actual time limits set for those trials.

Time limits are important from the standpoint of organizational planning and budget considerations. The **Attentional Focus Model (AFM)** predicts how time pressure affects team performance.\textsuperscript{36} The AFM model suggests that time pressure narrows group members’ attention to the most salient features of the task. As time pressure increases, the things that appear most central to completing the task become more salient and other factors are not considered. Time pressure can either enhance or reduce performance depending on the requirements for successful task performance. Specifically, when teams are under time pressure, they filter what they judge to be less important information.\textsuperscript{37}

**SELECTING TEAM MEMBERS**

Once managers have determined the goal, they are ready to focus on how to best select members for their team. The freedom to select team members may be constrained in many ways: Managers may be limited to selecting members from a particular department, of a particular status, and so on. In other cases, managers may go outside the organization to recruit. At the opposite extreme, some managers do not have a choice about who is on their team; existing departmental structures determine team membership. Many teams are built by accretion and swapping members, not just created from scratch. There are two key errors that leaders often make: they make the team too big (overstaffing bias) and they make the team too homogeneous. In 2012, Tim Solso, chairman of General Motors Company was frustrated with the large size and homogeneity of the company board observing, “Often you have people saying the same thing, it’s just


not as efficient as a smaller board.” Conversely, when BlackRock founding partner Sue Wagner was being considered for a seat on Apple’s board of directors, she was able to meet with nearly every director within just a few weeks because of the small size of the team. Apple’s board believes that keeping their director team small allows the team to stay flexible, have in-depth discussions, and stave off the negative effects of big group meetings.38

**Member-Initiated Team Selection**

The preceding discussion took the point of view of the leader in assembling a team. What factors motivate a person to join a particular team? Potential group members make decisions to join groups based on group attributes (e.g., characteristics of the group itself, including its status, past success, and member composition) as well as relationship attributes (e.g., their personal relationship with group members).39 Member-initiated groups are not necessarily exclusive of others. In one investigation, participants played four rounds of “social poker” (a card game in which self-selected groups compete for money). Some people were not chosen to be on any team; nevertheless, when “isolates” earned nothing, self-organized groups frequently included isolates, even at their own expense.40

**Optimal Team Size**

Leaders consistently struggle with the question of how many people to put on a team. Generally, teams should be fewer than 10 members. It is wise to compose teams using the smallest number of people who can do the task.41 Unfortunately, there is a pervasive tendency for managers to err on the side of making teams too large. According to the **team scaling fallacy**, as team size increases, people increasingly underestimate the number of labor hours required to complete projects.42 This is because leaders focus on process gains but fail to consider process losses. Unfortunately, managers seriously underestimate how coordination problems geometrically increase as team members are added. In 2016, the defense budget of the United States was $598 billion dollars. The bloated bureaucracy means that it takes an average of 22 1/2 years from the start of a weapons program, through design and production, to first deployment.43

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Teams that are overgrown have a number of disadvantages. Larger teams are less cohesive, and members of large teams are less satisfied with team membership, participate less often in team activities, and are less likely to cooperate with one another. People are more likely to behave in negative and socially unacceptable ways in larger teams, perhaps because team members feel more anonymous or are less self-aware.

Large groups may be more productive than small groups, but their marginal productivity declines as each person adds less and less value. A longitudinal study of 549 research groups found that the marginal productivity of larger groups declined as heterogeneity increased. People in large groups are more self-conscious and concerned about projecting the right image, and so they avoid serious topics. As group size increases, conformity increases in a negatively accelerating fashion, such that each additional person who agrees with the majority has less overall influence. Another problem of large teams concerns the equality of participation. For example, in a team of two to three, one person may do more of the talking, but all may participate. As the size of the team grows, more people do less talking relative to others. Sometimes, a few members say and do nothing.

In contrast, there are advantages to smaller, even understaffed, teams. Members of understaffed teams work harder, engage in a wider variety of tasks, assume more responsibility for the team’s performance, and feel more involved in the team. For these reasons, the CEO of SAP decided to restructure his 20,000 employee development team into teams of 8 to 12 people.

If smaller teams are more advantageous, why are they relatively rare? The problem is that managers of teams appear to have an overstaffing bias. When team leaders are

asked whether their teams could ever become too small or too large, 87 percent believe that understaffing is possible, but only 62 percent believe that overstaffing is possible.52

The question of how to downsize is critical in teams. One study investigated three types of downsizing on task focus: downsizing that eliminates the leader, downsizing that maintains the hierarchy (leader), and downsizing that integrates hierarchy. Only the teams that lost their leader (and hierarchy) increased their effort on task-related behaviors.53

**Skills, Talents, and Abilities**

Many leaders struggle with the criteria to use in team member selection. The following skills are important to think about when forming any team:

**Technical or functional expertise** If the task calls for open-heart surgery, a chemist or a lawyer will not suffice, no matter how great they are at what they do. Team members must demonstrate competence to perform what they need to do for the team to accomplish its goals. In most team tasks, it is necessary to recruit members with diverse skills. With increasing specialization, it is rare for one person to be knowledgeable in all aspects of a complex task.

**Task-management skills** It is not enough for team members to simply perform their functional area of expertise. They need to coordinate the efforts of the team, set goals, and enact plans. Task-management skills involve planning the work, monitoring performance, dealing with disappointments and unknowns, and surmounting coordination problems (see Exhibit 2-1 the left-hand side of the exhibit focuses on task-management skills; the right-hand side focuses on interpersonal skills.)

**Interpersonal skills** People on teams are not just automatons that simply carry out their tasks according to some predetermined plan. Because members of teams are people first—with their own issues, problems, and agendas—and team members second, the people side of teams exerts a powerful influence on productivity. Interpersonal skills include the ability to give constructive criticism, be objective, give recognition, learn from others, and so on. Consult the right-hand side of Exhibit 2-1 for examples of interpersonal skills in groups.

**Roles and Responsibilities**

People often assume different roles on a team. The *TREO* (Team Role Experience and Orientation) survey suggests that people occupy one of 6 different team roles.54 Those roles include: (1) **Organizer** (the person who acts to structure what the team is doing to meet their goals and timelines); (2) **Doer** (the person who volunteers to do the work to accomplish the goal and meet deadlines); (3) **Challenger** (the person who prods the team to consider alternatives; (4) **Innovator** (the person who generates new and creative ideas

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Part 1 • Building the Team

<table>
<thead>
<tr>
<th>Task-Management Skills</th>
<th>Interpersonal Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initiating</strong></td>
<td>Encouraging</td>
</tr>
<tr>
<td>Suggesting new goals or ideas</td>
<td>Fostering team solidarity by reinforcing others</td>
</tr>
<tr>
<td><strong>Information seeking</strong></td>
<td>Harmonizing</td>
</tr>
<tr>
<td>Clarifying key issues</td>
<td>Mediating conflicts</td>
</tr>
<tr>
<td><strong>Elaborating</strong></td>
<td>Compromising</td>
</tr>
<tr>
<td>Giving additional information, such as examples, rephrasing, and implications, about points made by others</td>
<td>Shifting one’s own position on an issue to reduce conflict in the team</td>
</tr>
<tr>
<td><strong>Energizing</strong></td>
<td>Gatekeeping</td>
</tr>
<tr>
<td>Stimulating the team to continue working when progress wanes</td>
<td>Encouraging all team members to participate</td>
</tr>
<tr>
<td><strong>Opinion seeking</strong></td>
<td>Reflecting</td>
</tr>
<tr>
<td>Clarifying attitudes, values, and feelings</td>
<td>Pointing out the positive and negative aspects of the team’s dynamics, and calling for change if necessary</td>
</tr>
<tr>
<td><strong>Coordinating</strong></td>
<td>Following</td>
</tr>
<tr>
<td>Pulling together ideas and suggestions</td>
<td>Accepting the ideas offered by others, and serving as an audience for the team</td>
</tr>
<tr>
<td><strong>Orienting</strong></td>
<td>Standard setting</td>
</tr>
<tr>
<td>Keeping the team headed toward its stated goals</td>
<td>Clarifying attitudes, values, and feelings</td>
</tr>
<tr>
<td><strong>Challenging</strong></td>
<td>Recording</td>
</tr>
<tr>
<td>Questioning the quality of the team’s methods, logic, and results</td>
<td>Performing a “team memory” function by documenting discussion and outcomes</td>
</tr>
<tr>
<td><strong>Recording</strong></td>
<td>Detailing</td>
</tr>
<tr>
<td>Performing a “team memory” function by documenting discussion and outcomes</td>
<td>Caring for operational details</td>
</tr>
</tbody>
</table>

**Exhibit 2-1 Task-Management and Interpersonal Skills**


and suggestions; (5) **Team Builder** (the person who establishes and adheres to norms and maintains group cohesion; and (6) **Connector** (the person who brings the team to relevant other groups and stakeholders). (See Exhibit 2-2 to examine your role.)

According to the theory of the **strategic core** of teams, certain team roles are most important for team performance, and the characteristics of the role holders in these “core” roles are more important than others for overall team performance. A field investigation of 778 teams drawn from 29 years of major league baseball (1974–2002) demonstrated that whereas high levels of experience and job-related skills are important predictors of team performance, the link between career experience, job-related skills, and ultimate performance is much stronger when the characteristic is possessed by core role holders (as opposed to non-core role holders).55 There is often a hierarchy of roles

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### Chapter 2 • Designing the Team

<table>
<thead>
<tr>
<th>Organizer</th>
<th>Doer</th>
<th>Challenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like to sort out details of a team project</td>
<td>I like when the team is busy and gets things done</td>
<td>I’m comfortable being critical</td>
</tr>
<tr>
<td>I like to decide who will do which task</td>
<td>People look to me when something needs to be done</td>
<td>I challenge assumptions</td>
</tr>
<tr>
<td>I keep the team on pace and aware of deadlines</td>
<td>I follow through on assignments</td>
<td>I question why we do things a certain way</td>
</tr>
<tr>
<td>I make sure members are clear about responsibilities</td>
<td>I can be counted on when tasks need to be done</td>
<td>I voice a different opinion to keep the team thinking</td>
</tr>
<tr>
<td>I keep track of how well the team is doing</td>
<td>I get my assignments done</td>
<td>I question what the team should do to get the job done</td>
</tr>
<tr>
<td>I organize the team</td>
<td>I step up and do whatever is necessary to make the team successful</td>
<td>I’m not afraid to question members’ authority</td>
</tr>
<tr>
<td>I structure activities</td>
<td>I volunteer for difficult assignments</td>
<td>I point out potential risks</td>
</tr>
<tr>
<td>I suggest the steps to follow</td>
<td>I’m always committed to the task</td>
<td>I can refute ideas that are unsound</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Innovator</th>
<th>Team Builder</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>I volunteer new ideas</td>
<td>I calm people down and get them focused</td>
<td>I get the resources our team needs to be successful</td>
</tr>
<tr>
<td>I test new ideas</td>
<td>I support the common interest</td>
<td>I coordinate the team with people outside of the team</td>
</tr>
<tr>
<td>I make suggestions when the team gets stuck</td>
<td>I help deal with conflict</td>
<td>I spread ideas outside the team</td>
</tr>
<tr>
<td>I get bored when we do the same thing each time</td>
<td>I help different people work together effectively</td>
<td>I’m a spokesperson for the team</td>
</tr>
<tr>
<td>I’m known for being creative</td>
<td>I maintain good working relationships</td>
<td>I connect with people who can help my team succeed</td>
</tr>
<tr>
<td>I come up with new methods to accomplish the task</td>
<td>It upsets me when I see members frustrated</td>
<td>I find out what is going on outside and share with my team</td>
</tr>
<tr>
<td>I share new ideas</td>
<td>I find common ground</td>
<td>I am the team liaison</td>
</tr>
<tr>
<td>My team sees me as innovative</td>
<td>I encourage members when they are challenged</td>
<td>I promote the team’s mission to outsiders</td>
</tr>
</tbody>
</table>

### Exhibit 2-2 Team Role Experience and Orientation


In a team. Hierarchically differentiated groups, composed of high- and low-power individuals perform better on interdependent tasks than when all members are high in power or are low in power.56

**Backing-up behavior** is defined as “the discretionary provision of resources and task-related effort to another member of one’s team that is intended to help that team

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member obtain the goals as defined by his or her role." However, there are some costs of backing-up behavior, such as when the team member providing backup neglects their own taskwork, especially when the workload is evenly distributed. Moreover, backing-up may lead to free riding, as team members who receive high amounts of backing-up behavior decrease their taskwork in subsequent tasks.

**DIVERSITY**

Diversity is any attribute that another person may rely upon to notice differences. U.S. Air Force Major General Larry Spencer says of diversity, “You wouldn’t line up 11 quarterbacks or 11 linemen on a football field to make a play. You need diversity. People have their own unique backgrounds and skill sets that help them accomplish the mission. We need all those talents and only when we work together do we find success.”

**TYPES OF DIVERSITY** There are three types of diversity in workgroups: social category diversity, value diversity, and informational diversity. Social category diversity refers to explicit differences among group members in social category membership, such as race, gender, and ethnicity. Value diversity is present when members of a workgroup differ in terms of what they think the group’s real task, goal, or mission should be. Informational diversity refers to differences in knowledge bases and perspectives that members bring to the group.

In a study of 92 workgroups, informational diversity positively influenced group performance by increasing task conflict. Social category diversity positively influenced group member morale. Lack of social category diversity may hurt group performance. For example, all-male or male-dominated teams make decisions that are overaggressive. Value diversity decreases satisfaction, intent to remain in the group, and commitment to the group by increasing relationship conflict.

**DEGREE OF DIVERSITY** Within a group, diversity may be extreme (with everyone highly different from one another); moderate (such as one subgroup); or a hybrid type, known as a faultline in which diversity is moderate and highly visible. A study of over 1600

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managers in 76 work units revealed a negative relationship between gender faultlines and loyal behavior; and a positive relationship between a supportive diversity climate and loyal behavior. For example, a long time female engineer at NASA recalled often being the only woman in the room for project meetings and even being asked to take notes. The assumption from her male colleagues: she was a secretary.

OBJECTIVE VS. PERCEIVED DIVERSITY  
Objective diversity is the actual compositional attributes of a group (e.g., differences in demographic or functional background); perceived diversity is people’s subjective understanding of differences in their group. There is only a modest correlation between objective and perceived diversity; and the motives of group members (e.g., need to belong vs. distinctiveness) affect perceived diversity. When the effects of actual dissimilarity are controlled for, perceived deep-level diversity predicts negative job attitudes, decreases helping behavior, increases turnover, and leads to withdrawal. In one investigation, people’s judgments of others’ contributions, group effectiveness, and desire to work with the group again were increasingly negative as the proportion of women in the group increased, yet there were no performance differences as a function of gender composition.

DIVERSITY AND TEAM PERFORMANCE  
A study of 83 teams from eight organizations found that age and educational diversity were positively related to team performance when teams engaged in and enjoyed effortful cognitive activities—known as need for cognition. Conversely, diversity in learning and performance orientation decreases team performance; but if teams engage in reflexivity—talking about how they work as a team—the negative effects of diversity can be counteracted. Groups whose members differ in terms of social category as well as in their information discuss information more thoroughly and perform better than do groups who do not have both types of diversity. Groups that are diverse in terms of social category are perceived to be more positive and accepting of others, engaged in more persistent and confident articulation of divergent perspectives, and are more engaged in the task than are homogeneous groups.

72Phillips, Mannix, Neale, & Gruenfeld. Diverse groups and information sharing. p. 96.
Teams benefit from multiple sources of task and informational diversity. Educational diversity refers to heterogeneity in terms of education; national diversity refers to differences in culture. Both types of diversity provide teams with information-processing benefits that outweigh the limitations associated with social categorization processes. In general, groups with greater educational diversity are more likely to use information. In contrast, national diversity tends to raise issues of social categorization, which hinders information use. However, diversity in cognitive styles does not always benefit team performance. An investigation of teams performing a building task revealed that heterogeneity in cognitive style hindered their ability to reach a strategic consensus and led to more errors.

MINORITY INFLUENCE When we refer to a minority viewpoint, we are not describing the views held by a demographic minority; rather, we are referring to the presence of a statistical minority. The presence of a minority opinion has beneficial effects in terms of prompting others to make sounder judgments and in launching better discussions. Minority opinions can arise from one of two sources—from a member of one’s own team (an in-group member) or a member of another group (an out-group member). Both can be effective; however, a minority opinion offered by an in-group member is often more influential. Yet, people in an in-group may be particularly unlikely to offer a different viewpoint because of the strong pressure to conform and a reluctance to express views that effectively threaten the group. Indeed, when two people on the same team disagree with one another, there is more uncertainty, greater stress and anxiety, and more concern about social relationships. In short, people on the team may want to repair the relationships, rather than discuss the issues. Indeed, disagreement with out-group members is more tolerable than disagreement with in-group members. Perhaps this is why in-group minorities use the phrases “I don’t know” and “I’m not sure” much more often when expressing a different view than do out-group members.

76Ibid.
Members in the majority exhibit greater integrative complexity than do those in the minority.\textsuperscript{82} For example, a study of opinions rendered by the U.S. Supreme Court found that authors of majority opinions tend to concern themselves with specifying all imaginable contingencies under which the law should and should not apply to ensure the longevity of their precedent.\textsuperscript{83} In contrast, the authors of minority opinions often focus on arguments that could eventually facilitate the precedent’s overruling. This suggests that people who are exposed to members who hold a majority view experience an increase in their own levels of integrative thought; in contrast, people exposed to minority opinions or unanimous groups actually experience a decrease in integrative thinking.\textsuperscript{84}

**BUILDING A DIVERSE TEAM** Leaders need to be thoughtful about diversity. Left to their own instincts, most leaders and most teams opt for homogeneity, not diversity. For example in a large-scale study spanning 33 project groups over 4 years, work partner choice was biased toward others of the same race.\textsuperscript{85} When people in actual work groups had an opportunity to select future group members, their choices were biased toward not only those who were from the same racial group as themselves but also those who had a reputation for being competent, hardworking, and with whom they had developed strong working relationships. Another investigation revealed that top management teams tend toward “homosocial reproduction” (i.e., selecting people in their own image) rather than diversity. In a longitudinal analysis of a major Dutch newspaper publisher of 25 years, poor performance and high diversification caused teams to select “likes,” and this tendency was even stronger when competition increased.\textsuperscript{86} When pressure increases, top management teams tend to “hire likes and fire unlikes.”

**VALUING DIVERSITY** When groups are persuaded of the value of diversity (versus the value of similarity) for their team’s performance, diverse groups perform better when they hold prodiversity (vs. prosimilarity) beliefs.\textsuperscript{87} The more a team values diversity, the more likely they are to construe their diversity in terms of individual differences and the less likely they are to construe diversity in terms of group-level differences (e.g., race and gender).\textsuperscript{88}


\textsuperscript{83}Ibid.


HOW MUCH DIVERSITY? The optimal degree of diversity may depend on interpersonal congruence—the degree to which we see ourselves as others see us. A longitudinal study of 83 work groups revealed that diversity improved performance on creative tasks—provided that interpersonal congruence was high. Yet, diversity undermined the performance of groups with low interpersonal congruence. The amount of group variability (diversity) affects how they react to atypical group members. When groups are more diverse, atypical members are evaluated more positively than when the group is homogeneous. Reactions to diversity also depend on people’s values, such as being conservative; people who are less conservative are more tolerant of diversity.

CONFLICT Diverse teams will often (but not always) experience more conflict than will homogeneous groups, as individuals attempt to reconcile one another’s views or simply decide upon a single course of action. In an investigation of 45 teams from the electronics divisions of three major corporations, functional background diversity drove task conflict, but multiple types of diversity drove relationship conflict. Race and tenure diversity are positively associated with relationship conflict, whereas age diversity is negatively associated with relationship conflict. In a study of top management teams in bank holding companies, heterogeneity with respect to age and experience outside the industry was positively related to turnover rates. If improperly managed, culturally diverse groups may not reach their potential.

SOLOS AND TOKENS Individuals experience solo status when they are the only member of their social category (e.g., gender and race) present in a group. Tokens are people in groups who are typically underrepresented or part of a minority, often historically disadvantaged. The smaller the number of other token (disadvantaged and minority) group members present, the more negative the experience for the individual. Solos are more visible in a group and are more likely to be isolated and experience role entrapment. The increased visibility pressures create performance pressure on the token. Because they are more likely to be stereotyped according to their group membership, they experience isolation and are essentially trapped in whatever role is expected of them. An investigation comparing men’s and women’s job performance ratings revealed that women’s performance evaluations worsened as their proportion within the workgroup declined, whereas men’s performance evaluations were independent of their relative

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numbers in the workgroup. In a testing situation, solos performed more poorly during an oral examination. Moreover, men, particularly solos and non-solos, appear to merit positive evaluations simply by being men.

**PROCESSES: HOW TO WORK TOGETHER**

**TASK VS. OUTCOME INTERDEPENDENCE**

Team members rely on one another and are therefore, interdependent. There are two key types of team interdependence: **task interdependence** and **outcome interdependence**. A meta-analysis of 7,563 teams revealed that task interdependence is primarily associated with team performance via task-focused functioning (e.g., action); whereas outcome interdependence is associated with team performance via relational functioning (e.g., cohesion).

Many types of task interdependence affect the way teams get their work done. (See Exhibit 2-3.) Consider the following three types of task interdependence:

- **Pooled interdependence** occurs when group members work independently and then combine their work. Consider a department store’s furniture department. It comprises several salespeople, each of whom is compensated based on sales performance. On an interdepartmental level, the sales of each salesperson are totaled and compared across departments, so that cosmetics, furniture, and men’s accessories can all be compared and added together to determine overall store profit. Throughout this process, each salesperson is independent. Another example is a team of sprinters, each running as fast as they can; the team’s output is simply the average time.

- **Sequential interdependence** is the classic assembly line, or division of labor; each member of the team with a particular skill or task to perform. Members are increasingly interdependent, with those further down the line more dependent on others. For example, a relay race in which each runner needs to hand off a baton to the other team member.

- **Reciprocal interdependence** is the highest form of interdependence. Every member is dependent on others at all levels—not just in a simple linear fashion, as in sequential interdependence. Consider a cycling team in which members ride in a rotating pace line, and change position every few seconds to maintain a high, steady speed. Similarly, when software developers are writing code, each person must have a high degree of familiarity with the other pieces of the program; otherwise, the likelihood of bugs increases significantly.

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High levels of task interdependence, which require interactions among group members to obtain crucial resources, consistently enhance performance. Highly interdependent members generate solutions faster, complete more tasks, and perform better than teams whose members are not highly dependent on one another. Top management teams with higher interdependence experienced higher team and subsequent firm performance when the team was more cohesive and had more communication. However, teams with low interdependence had higher performance when communication and cohesion were lower.

To a large degree, greater specialization means greater interdependence because team members must rely on others to complete their portion of the work. The start-up times for reciprocal interdependence may seem daunting, but it may be especially important for highly complex tasks that require high levels of customer satisfaction. Another advantage of reciprocal interdependence is that all team members know the overall objectives of the team and may feel more accountable. Team values also influence the nature of their interdependence. A longitudinal field study of 39 project teams

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revealed that teams whose members shared egalitarian values (i.e., a desire to create a shared sense of membership) develop highly interdependent task approaches and patterns of interaction. In contrast, groups whose members hold meritocratic values (i.e., where individuals are motivated to demonstrate their unique abilities to other group members) develop low-interdependence task approaches.\textsuperscript{102}

**Transition and Action Processes**

Teams do not work in a steady state; they need to shift their processes. **Process shifts** are points in time when teams complete a focal process and change to another process.\textsuperscript{103} Certain interventions may promote discussions about key issues to affect performance.\textsuperscript{104} A study of teams competing scheduling assignment problems revealed five types of process shifts: (1) **mission analysis** is a discussion of the task objectives, environment and resources, e.g., “how many hours can employees work each week?”; (2) **goal specification** is the discussion of task goals, and the prioritization of goals for task accomplishment, e.g., “Let’s win!”; (3) **tactical strategy** is a discussion of the courses of action that would be employed in task achievement, e.g., “we should assign workers with lower wages first”; (4) **operational strategy** is a discussion of roles and responsibilities of members, e.g., “I’ll be responsible for keeping track of hours worked”; and (5) **action process** is a discussion of actual performance of the assigned task, e.g., “I will put Chris on this task, and Brayden on this assignment.”\textsuperscript{105}

**Structure**

**Team structure** refers to how clearly the group’s processes are articulated by team leaders and the organization, and the extent to which they are closely adhered to by team members. Groups that are highly structured have specialized roles and routines; groups that are low in structure do not have set roles and routines. Groups with low structure are often allowed to allocate work and organize themselves in any way that they please. They are often not assigned roles and are not given specific routines for doing a given task. They are simply asked to deliver. In contrast, highly structured teams are asked to assume specialized roles and take on distinct jobs. They are often told how to engage in the processes in order to deliver. Switching jobs or roles is usually not permitted. An analysis of 80 small production groups revealed that those teams with low structure suffered more than highly structured groups when turnover occurred.\textsuperscript{106} For example German automaker, Volkswagen, follows a “command-and-control” structure where roles are carefully delegated from top management, and even relatively minor team decisions require formal approval. Work teams are highly structured to

\textsuperscript{102}Wageman, R., & Gordon, F. (2006). As the twig is bent: How group values shape emergent task interdependence in groups. *Organization Science, 16*(6), 687–700.


\textsuperscript{105}Ibid.

specific tasks. Conversely, at Facebook, roles are molded around people, rather than vice versa, and new engineers are instructed to find the place where they will make the most impact.  

**Norms**

“[People] cannot help producing rules, customs, values, and other sorts of norms whenever they come together in any situation that lasts for any considerable time.” Norms are shared expectations that guide behavior in groups. Just as role negotiation and status competition occur early on in the development of groups, so do norms, or the ideas and expectations that guide appropriate behavior for members. Norms differ from formal rules in that they are not written down. Because norms are expectations about appropriate behavior, they embody information about what people should do under various conditions. This makes it easier for people to respond appropriately under new or stressful conditions and helps ensure that everyone is working toward the same goal. Thus, norms reduce coordination problems. Precious time is not lost while members wonder what to do. For example at Nordstrom, the employee handbook reads, “Use your best judgment in all situations”; and Zappos, an online shoe store, says of their social media policy: “be real and use your best judgment.”

**Development and Enforcement** People in new groups rely on their definition of a situation in order to retrieve an appropriate script. A script is a prescriptive sequence of behaviors that dictates appropriate behavior in a given situation. Many norms develop within the first few minutes of a team’s first meeting, such as whether it is appropriate to come a few minutes late, seating arrangements, and so on. As soon as the group members act collectively, they have established a new behavior, which serves as a precedent. All group members now have a shared script for “how we do this in a group.” The issue for the group when they face their next task or decision, is not “what shall we do?” but “shall we proceed as before?” This precedent shapes members’ shared beliefs about appropriate behavior. One norm relates to helping behavior. The more extraverted group members are, the more helping norms develop.
When norms are left strictly to natural processes and interaction patterns among members, the individuals who are most disruptive and least self-conscious may set unfavorable norms. This is because people who are the most outspoken and the least self-conscious do the most talking. One of the best ways to counteract undesirable norms is to introduce productive norms and structure early on; structure is the opposite of free-form interaction, where anything goes. For example, when Lars Dalgaard was the CEO of SuccessFactors, a cloud-based software company, he set the norm that no one was to blind carbon copy someone on an email. Dalgaard reasoned that this norm helped people remember to be human at work: “When you look someone in the eye, you’re not going to be that rude. It’s just impossible.” Additionally, if someone came to him with a complaint about another employee, he immediately brought them into the email chain and set the norm that at his company, people talk issues through. Other norms may focus on improving group cohesion. For example at Skimlinks, the term, “skimlove,” depicts the company’s interest in team cohesion. On Friday afternoons, skimlove is shown through something similar to a show-and-tell, where team members can talk about what they built or achieved that week. The company also has a song where the lyrics are about helping each other.

Although some level of agreement is necessary for an expectation to become a norm, this does not mean that norms may not be in conflict. For example, in one hospital, nurses might think that the amount of work the administrators expect the nurses to do is about right, whereas in another, nurses might think the administrators expect the nurses to do too much paperwork. It may be that the norm within one department of a company is to allow its employees to take time during the workday to handle personal matters as long as the time is made up later, but this may not be considered acceptable behavior in another department within the same company.

**NORM VIOLATION** Like rules, norms may often be violated. What are the consequences of norm violation within a team? Typically, the first response of a team to a norm violator is not exclusion but rather, to persuade that person to change. When regularity is interrupted, or violated, the “injured” parties frequently attempt to regain regularity by appealing to the norm (e.g., “Why didn’t you circulate the report—we always do that!”). When a team member repeatedly violates a norm, there are serious repercussions, even if the behavior in question is useful for the organization. Consider for example, the studies conducted at the Hawthorne Works plant in the 1940s. Strong norms developed among work group members concerning the rate of acceptable productivity. That is, members in a particular work group developed a pace at which to work; it was just enough to produce the desired output requested by the supervisor, but not enough to overly tax the group’s members. Consequently, when members of the work group failed to produce at the level displayed by their peers, they were sharply reprimanded. Furthermore, when members of the group overproduced (worked harder than other members of the group),

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they were harshly punished. In the Hawthorne Works plant, researchers observed a behavior called “binging,” in which the “rate buster” (i.e., the overproducer) was given a sharp blow to the arm so as to reprimand the employee and decrease the level of output.

Certainly, not all cases of norm violation in organizational work groups are met with physical aggression. The first response of a team to a norm violation is usually to attempt to correct the misbehavior with some reminders. Teams will often persist in this kind of corrective activity for a long period before they move to more drastic measures. Indeed, other forms of punishment and aggression are perhaps even more detrimental to individual and organizational well-being, such as ostracism, in which people are excluded from certain social, or professional, activities. Ostracism can have negative repercussions for the company as well if the isolated individual is not given sufficient information to effectively do their job.

**CHANGING NORMS** Once established, norms are not easily changed. Norms are often maintained over several generations, during which older members gradually leave the team and new members join. The team’s efforts to transmit their norms are particularly strong when newcomers are involved. Teams are highly motivated to provide newcomers with the knowledge, ability, and motivation they will need to play the role of a full member. Consequently, newcomers are usually receptive to these attempts because they feel a strong need to learn what is expected of them.

**TEAM COACHING**

**Team coaching** is “direct interaction with a team intended to help members make coordinated and task-appropriate use of their collective resources in accomplishing the team’s work.” According to Hackman and Wageman’s theory of team coaching, coaching involves three distinct features:

- The *functions* that coaching serves for a team
- The specific *times* in the task–performance process when a coaching intervention is most likely to have the intended effects
- The *conditions* under which team-focused coaching is likely to facilitate performance

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123 Ibid.
Examples of coaching include a press meeting before a new product is announced, giving team feedback on performance, or asking the team thoughtful questions about their recommendations for a new strategy. Although personally coordinating the work of a team, or negotiating resources is, on the surface, quite useful for the team, it is not coaching. According to Hackman, “coaching is about building teamwork, not about doing the team’s work.” As important as coaching is for team success, leaders focus their behavior less on team coaching than on other aspects of the team leadership portfolio.

**Types of Coaching**

Coaching can be educational, motivational, or strategic. (See Exhibit 2-4.) Coaching that focuses on ability, knowledge, and skill is educational in nature. For example, a coach might either provide or suggest that a person get training on particular skills, such as marketing or emotional intelligence. Coaching that focuses on how to enhance involvement is motivational in nature. For example, a coach might suggest that team members enhance their commitment to the team by outlining their goals and target dates for completing those goals. Finally, coaching that focuses on how to best integrate

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125 Ibid.
members’ strengths and abilities is consultative in nature. For example, a coach might suggest that the team members practice performing a particular task with one another.

According to Hackman and Wageman, the three coaching functions—education, motivation, and consultation—address a team’s task performance processes, not members’ interpersonal relationships. Thus, coaching functions are interventions that inhibit threats to performance and enhance synergetic gains for each of these three performance processes. For team coaching to be effective, four conditions have to be present.¹²⁸

First, the team performance processes that are essential for success (i.e., expertise, engagement, and execution) must be relatively unconstrained by task or organizational requirements.

Second, the team must be well designed and the organizational context supportive. Well-designed teams respond better to good coaching and are undermined less by ineffective coaching, more so than poorly designed teams.¹²⁹

Third, coaching behaviors should focus on salient task performance processes, rather than interpersonal relationships or processes not under a team’s control. For example in one investigation, leaders trained in two specific forms of process facilitation—strategy development and coordinating—were able to lead their teams through a specific battle simulation operation better.¹³⁰

Finally, coaching interventions should be introduced when the team is ready and able to incorporate them. For motivational interventions, the beginning of the task cycle is ideal. For consultative–strategy interventions, the midpoint is ideal, and for educational interventions, the end of the task cycle is optimal. Leaders who use active coaching are evaluated less positively, in terms of team member satisfaction with leadership, yet their teams are more effective, particularly under change and disruption.¹³¹

**Chapter Capstone**

Designing a team begins with a goal. Teams that have clear and elevating goals are best positioned to succeed. We discussed the importance of learning versus performance goals and introduced the difference between promotion- and prevention-focused goals. The selection of team members should not be left to chance. Indeed, two common errors that managers make are the overstaffing bias and the homogeneity bias. The optimal team size is the fewest number of people required to accomplish a task. We focused on diversity and noted that in general, informational diversity is positively associated with team performance; whereas social category diversity improves group cohesion. We explored how to build a diverse team, beginning with valuing diversity. The process of managing a team on a day-to-day level begins with establishing norms. The effective leader can coach the team with regard to information, motivation, and coordination.


