

Teams and Teamwork at NASA Langley Research Center

by

Professor Terry L. Dickinson
Department of Psychology
Old Dominion University
Norfolk, Virginia 23529

The recent reorganization and shift to managing total quality at the NASA Langley Research Center (LaRC) has placed an increasing emphasis on teams and teamwork in accomplishing day-to-day work activities and long-term projects. The purpose of this research was to review the nature of teams and teamwork at LaRC. Models of team performance and teamwork guided the gathering of information. Current and former team members served as participants; their collective experience reflected membership in over 200 teams at LaRC. The participants responded to a survey of open-ended questions which assessed various aspects of teams and teamwork. The participants also met in a workshop to clarify and elaborate on their responses.

The work accomplished by the teams ranged from high-level managerial decision making (e.g., developing plans for LaRC reorganization) to creating scientific proposals (e.g., describing spaceflight projects to be designed, sold and built). Teams typically had nine members who remained together for six months. Member turnover was around 20 percent; this turnover was attributed to heavy loads of other work assignments and little formal recognition and reward for team membership.

Team members usually shared a common and valued goal, but there was not a clear standard (except delivery of a document) for knowing when the goal was achieved. However, members viewed their teams as successful. A major factor in team success was the setting of explicit a priori rules for communication.

Task interdependencies between members were not complex (e.g., sharing of meeting notes and ideas about issues), except between members of scientific teams (i.e., reliance on the expertise of others). Thus, coordination of activities usually involved scheduling and attendance of team meetings.

The team leader was designated by the team's sponsor. This leader usually shared power and responsibilities with other members, such that team members established their own operating procedures for decision making. Sponsors followed a hands-off policy during team operations, but they approved and reviewed team products. Most teams, particularly high-level decision-making teams, had little or no authority to carry out their decisions.

Team members had few interpersonal conflicts. They monitored each other respectfully about meeting deadlines. Feedback and backup behaviors were seen as desirable aspects of teamwork, wanted by the members, and done appropriately.