

Team Effectiveness in Adventure Racing: The Power of Role Congruency and Role Redundancies

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Context & Population

All 89 four-person teams in the 2006 Primal Quest Adventure Race in Moab, Utah. Twenty teams from non-US countries, such as Australia, Brazil, Guatemala, Ireland, Japan, Mexico, New Zealand, South Africa, Spain and Sweden. Average age of racers was 36.8 years ($\sigma = 6.24$) and 28.7% were female.

Methodology

Mixed-methods study; Pre-race surveys conducted with all 359 racers and post-race surveys with 216 racers.

Key Variables

Outcome variable of team effectiveness measured in terms of *team final ranking*, *individual post-race satisfaction*, and *individual inclination to race with team again*. Predictive variables included *amount of race experience*, *team familiarity*, and *shared goals*. The study also tested the effect of *team congruency measures* – the degree to which members saw themselves as others saw them – in areas of *skill level* and *team role*.

Team Roles

Each racer was asked an open ended question in which they wrote the roles they expected themselves and their teammates to assume. This qualitative data was analyzed and the roles (n=3,349) were open-coded to generate seven emergent team roles that drew on the racer’s own words: *Navigator* (n=1032), *Motivator* (n=808), *Work-horse* (n=604), *Decision-maker* (n=332), *Logistics/coordinator* (n=314), *Other* (n=188), *Specialty Expert* (n=177).

Central Findings

- **Team familiarity** and **team role congruency** were the most powerful predictors of team effectiveness. For example, top teams were six times more familiar and had 25% more agreement on roles than bottom teams.
- Contrary to expectations, shared goals and race experience had no significant effects on measures of team effectiveness.
- Having agreed upon redundant roles (two or more members occupying a role) in **navigation** proved vital to team effectiveness. For example, 80% of top teams had two or more agreed upon navigators while 75% of bottom teams did not.
- Having an agreed upon role of **workhorse** had significant positive effects on team effectiveness.
- Teams were more effective when they had **redundant roles in decision-making** and high levels of skill congruence (when self assessments of their skill levels were in agreement to their teammates perceptions of their skills)

Most Significant Predictors of Team Effectiveness Outcomes at PQ 2006



	Final Rank	Individual Satisfaction	Inclination to Race w/ Team Again
Team Familiarity	✓	✓	✓
Team Role Congruency	✓	✓	✓
Redundant Roles– Navigator	✓		✓
Team Role - Workhorse		✓	✓
Redundant Roles – Decision Maker			✓
Team Skill Congruency		✓	