

# R ResearchLink

No. 11, September 2010

## Getting to Know You: Self-awareness is key for high-performing, adaptive teams

### THE TOPIC: HOW THE EXCHANGE OF ROLE-RELATED INFORMATION IS VITAL TO TEAM EFFECTIVENESS

The goal of this study was to examine how teams create an infrastructure that allows them to divide work responsibilities and coordinate their activities. Over time, teams build mental structures—a set of guiding beliefs, techniques, values, etc.—that create common understanding among members and awareness of who knows what within the group. These structures are critical for teams to operate effectively.

A good cross-functional team consists of capable individuals with diverse capabilities who work well together (Cohen & Bailey, 1997; Keller, 2001; Smith-Jentsch, Mathieu & Kraiger, 2005). Shortly after the team is formed, the members begin to learn about the team's purpose and objectives, each other's skills and responsibilities, and how these fit into the team's mission (Espinosa, Lerch & Kraut, 2004; Ilgen, Hollenbeck, Johnson & Jundt, 2005; Kozlowski & Bell, 2003). Each member may specialize in an area, but must also be aware of others' expertise and duties—knowledge that allows members to anticipate and respond to teammates' needs (Cannon-Bowers, Salas & Converse, 1993; Kozlowski & Ilgen, 2006).

Previous research focused on the benefits of this type of team self awareness, e.g., in terms of team performance or employee satisfaction, but we still don't know much about how such structures are formed. This study takes a closer look at how team members gain knowledge about their teammates through communications to one another about their roles and responsibilities, and how the accuracy and timing of these communications, or "role identification behaviors," (Kozlowski, et al., 1999) affects team performance.

### KEY FINDINGS

- ◆ *Role identification behaviors, or information exchanges among team members regarding individuals' roles within a team, are crucial to the development of a team's self awareness.*
- ◆ *If team members do not accurately exchange information about their roles, their responsibilities and duties may be unclear, important tasks may go unaddressed, and other tasks may be performed inefficiently (e.g., performed with redundant efforts).*
- ◆ *The more that team members engage in role identification exchanges early in the team's life cycle, the better the team's performance.*

## THE STUDY QUESTIONS

In this study, researchers asked the following questions:

- ◇ **How do teams create an infrastructure that allows them to divide work responsibilities and coordinate their activities?**
- ◇ **What is the process whereby a team's members learn who has the knowledge to perform what tasks, and when?**
- ◇ **What are the points at which individuals communicate crucial information about their responsibilities and expertise to their team members, and how does this communication behavior affect team performance?**

## THE RESULTS

*The quantity of members' role-identification behaviors directly affects the development of a team's self awareness. The more role-identification behaviors that a team engages in, the better and sooner it understands its objectives, the environment in which it works, and the expertise and functioning of its members.*

*The accuracy of a team's self awareness affects the effectiveness of individuals' information exchanges about their roles and responsibilities.*

*As team members gain awareness of the team's purpose and their individual roles and responsibilities, they achieve higher performance and are better equipped to respond to evolving demands.*

### ***Communicating role information helps team development***

To function effectively, the team must have two distinct and overlapping types of self awareness, or "cognition:"

- *Team-interaction mental model*: common knowledge about the team's purpose and the environment in which it works (Mohammed, Klimoski & Rentsch, 2000)
- *Transactional memory*: team members' knowledge about each other's capabilities, and the infrastructure to deploy that knowledge as needed (Wegner, 1987; Hollingshead, 2001; Lewis, 2004; Zhang, Hempel, Han & Tjosvold, 2007)

In this study, the researchers found that when teammates communicated correct information about their expertise and responsibilities to each other, this enhanced the development of both the group's mental model and transactional memory.

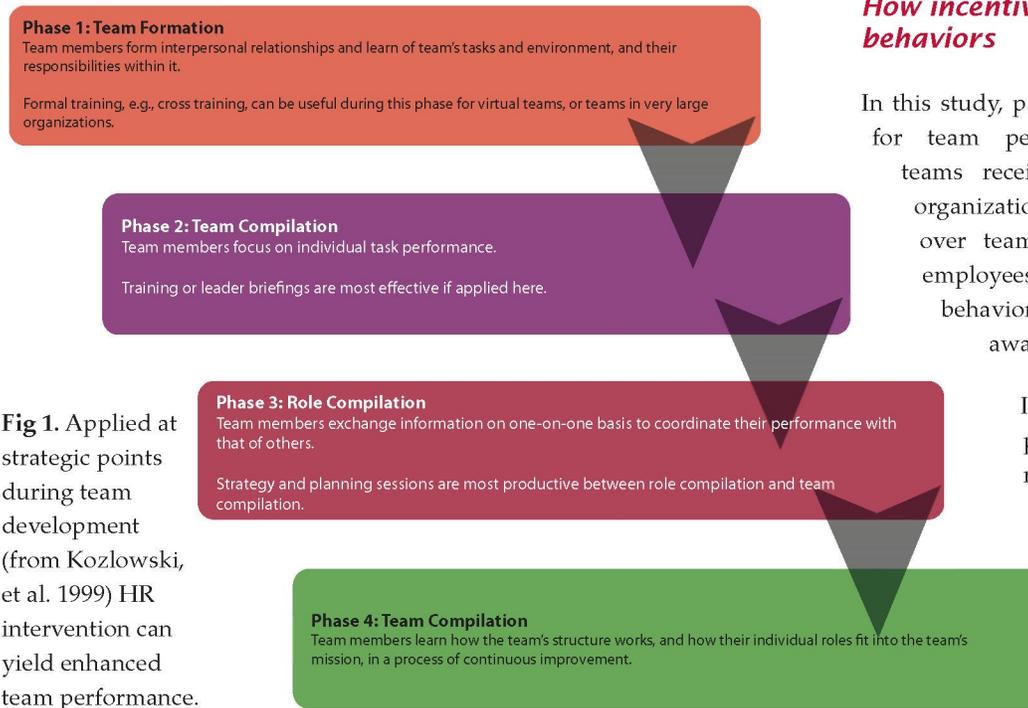
### ***Timing the exchange of role information can optimize team performance***

A team develops in four phases (Kozlowski, et al., 1999):

1. Team formation – members develop a team orientation
2. Task compilation – members develop individual proficiency
3. Role compilation – members exchange information one-on-one about their respective responsibilities
4. Team compilation – team focuses on team task completion and process improvement

In this study, the researchers sought to pinpoint where role-identification behaviors arise in a team's lifecycle, and how these communications affect the development of the team's self awareness.

The researchers found that teams that engage in role-identification behaviors during the role compilation phase have improved self awareness. In addition, early exchange of information about members' roles leads to more effective and efficient teamwork during team compilation. Accordingly, training or leader briefings are probably most effective after task compilation, but before the role compilation phase, when roles become fixed. However, strategy and planning sessions may be most productive when they occur between the role compilation and team compilation phases—since team members already understand the team's mission and their responsibilities within the team.



## How incentives affect role-identification behaviors

In this study, participants were monetarily rewarded for team performance: the highest-performing teams received cash awards. However, some organizations reward individual performance over team participation. If this is the case, employees may engage less in role-identification behaviors, and teams may develop less self awareness—and be less effective.

**Fig 1.** Applied at strategic points during team development (from Kozlowski, et al. 1999) HR intervention can yield enhanced team performance.

In addition, team members' physical proximity to one another can affect role-identification behaviors. For instance, on the one hand, virtual teams may engage less in role-identification behaviors than teams that are physically close, resulting in a less clear understanding of individuals' roles and expertise. On the other hand, team members might compensate for their lack of

in-person interaction by putting more detail into their email communications, or consciously discussing their roles and responsibilities during videoconferences.

## THE TAKEAWAY

How can the results of this study help HR practitioners optimize team performance?

- ◇ **HR practitioners can optimize team performance by facilitating and supporting role-identification behaviors. For example, training in communication skills, or leader briefings, can help facilitate information exchanges among team members. Strategy and planning sessions are formal ways to ensure that team members share information about their roles.**
- ◇ **If a team is experiencing coordination difficulties or process loss, it may be worthwhile to diagnose whether the team has engaged in the role-identification behaviors needed to create the required infrastructure. If not, HR practitioners should make efforts, e.g., training or planning, to facilitate these exchanges among team members.**

## Troubleshooting role-identification problems

When a problem arises in a team, it is often difficult to isolate the root cause. If team members have not successfully engaged in role-identification behaviors early in the team's life, they may not have developed the team awareness needed to function properly. For example, if they have not shared crucial information about their individual roles early on, they may not be performing the right tasks.

In addition, if individuals do not realize that they have not yet fully developed their understanding of the team's mission and environment, and its members' roles, they may stop exchanging information too early, resulting in inefficient team operations.

Thus, formal training can be useful when circumstances make role-identification behaviors difficult, such as in virtual teams or very large organizations. For instance, cross training can supplement initial role-identification behaviors by giving team members a basic understanding of their teammates' duties and areas of expertise.

## Exploring the dynamics of other types of teams

The researchers point out that this study is most relevant to self-managed action or decision-making teams, in which members with distinct areas of expertise are convened for a short period. Such teams include rescue units, cockpit crews, military units, engineering teams, and programming teams.

Teams with less-differentiated areas of expertise or with less interdependence may benefit less from role-identification behaviors. Indeed, some teams may do well without engaging in much role-identification behavior. For instance, creative teams may flourish on a diversity of experience and some overlap of capabilities, not so much on starkly delineated domains of expertise.

## THE DATA SOURCE

Data came from 240 students (61% male, 70% white, 21.2 years of age on average) in an introductory management course at a large U.S. university. The students were grouped into 60 four-person teams. They were eligible for cash prizes (up to \$160/team), based on team performance.

The team task was a computer simulation requiring monitoring, identification and repulse of potential enemy forces by four types of surveillance, interceptor and attack vehicles—one type per team member. Researchers recorded team members' information exchanges regarding their capabilities and responsibilities. Participants were later questioned on their teammates' responsibilities and on team dynamics. The teams then performed a 10-minute experimental task, whereby the researchers assessed team performance.

The researchers controlled for individuals' aptitude to learn tasks (SAT scores) and attitudes towards certain aspects of teamwork, such as interest in working on tasks that result in learning.

## THE RESEARCHERS

This study was conducted by:

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*For an in-depth discussion of this topic, see:*

*Pearsall, Matthew J., Ellis, Aleksander P.J., and Bell, Bradford S. (2010). Building the infrastructure: The effects of role identification behaviors on team cognition development and performance. Journal of Applied Psychology, 95, No. 1, 192-200.*

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