****

9B18C043

note on team effectiveness

Karen MacMillan wrote this note solely to provide material for class discussion. The author does not intend to provide legal, tax, accounting or other professional advice. Such advice should be obtained from a qualified professional.

*This publication may not be transmitted, photocopied, digitized or otherwise reproduced in any form or by any means without the permission of the copyright holder. Reproduction of this material is not covered under authorization by any reproduction rights organization. To order copies or request permission to reproduce materials, contact Ivey Publishing, Ivey Business School, Western University, London, Ontario, Canada, N6G 0N1; (t) 519.661.3208; (e)* [*cases@ivey.ca*](mailto:cases@ivey.ca)*;* [*www.iveycases.com*](http://www.iveycases.com)*.*

Copyright © 2018, Ivey Business School Foundation Version: 2018-10-17

The 2018 National Hockey League season playoffs got a lot of attention. The story that was plastered all over the mainstream news was the incredible rise of one team—the Las Vegas Golden Knights.[[1]](#footnote-1) This was a team that many thought should have been at the bottom of the league. It was a brand new franchise with a group of misfit players. In fact, most of the players had been available only because their former teams didn’t like them enough to save them in the expansion draft. Their talent base was low, they had no history as a team, and their coach had been fired from his previous team for poor performance.[[2]](#footnote-2) Yet, somehow, some way, this team managed to make it to the Stanley Cup Finals in its inaugural season—an almost unimaginable feat. People were astounded and captivated by the team’s success story.

Many viewers wondered, “How did this happen? How could a team that started with so little do so well?” Of course, coaches and sports fans are not the only ones who want to understand how to make a good team. Business leaders want to know, too. Work teams are a critical component of modern organizations—especially high-functioning teams—because they have the potential to multiply the power of an organization’s human resources. A high-performing team can accomplish more than the collected total of individuals working independently.[[3]](#footnote-3) Organizations that are able to leverage the power of teamwork may gain a significant advantage. Many experts spend their careers examining how teams work. Business leaders can learn from their research.

To start, it may help to define what a team is. A team is not just any collection of individuals working together. To be identified as a team, a group has to have shared goals, social interaction, and some interdependence for completing tasks. A group of students studying at the same library table do not make a team, even if they are all friends striving for the same goal—a good mark on an exam. They would not be considered a team because each person is striving independently toward an individual goal, rather than a group objective.[[4]](#footnote-4)

A common assumption is that if we just put good people together, they will automatically develop into a strong team. Conversely, we assume that if we put a lot of low-performing hockey players together, they will lose most of their games. However, research tells us that it is not that simple. Teams are different from the sum of their parts, and they develop as they go. Scholars have been able to develop a well-accepted model that can help managers and employees build team effectiveness in the workplace.

Overview of Input-Mediator-Outcome Team Effectiveness Framework

The *input-mediator-outcome* (IMO) team effectiveness framework (see Figure 1) offers a way to think about how teams work. This model suggests that when we connect people in a particular work context, they develop unique ways of interacting and feeling that largely determine how the team will perform. Over time, the team evolves, at least partly as a result of its shared experiences.[[5]](#footnote-5)

Figure 1: IMO Team Effectiveness Framework



Adapted from J. Mathieu, M. T. Maynar, T. Rappy, and L. Gilson, “Team Effectiveness 1997-2007: A Review of Recent Advancements and a Glimpse into the Future,” *Journal of Management, 34,* (2008): 410-476.

To maximize team performance, it helps to understand each of the three main components of this model: inputs, mediators, and outcomes.

Inputs

*Inputs*are the first component of this framework. These are the building blocks or the starting conditions for the team. Inputs can exist at the individual level, the team level, or the organizational level, as described below:

* At the *individual level,* each team member brings to the team specific attributes, which can consist of personal characteristics including skills, knowledge, abilities, connections, personality traits, competencies, task knowledge, attitudes, values, or experiences. These human resources are the first set of inputs to the team.
* At the *team level,* the individuals (with their own characteristics) combine in unique ways. For example, the team can vary in terms of distribution of competencies across the team members, how well members know each other, the size of the team, diversity levels, preferences for certain individual characteristics, interdependence levels, training, leadership, and other attributes. The ways in which the individual members fit together are the second set of inputs to the team.
* At the *organizational level,* there are additional influences on the team. For example, the company may have specific reward systems, policies, culture, and training that support certain types of team interaction. These factors also set the team’s tasks and expected outcomes, and provide resources for the team. The pressures and supports from the organization are the third set of inputs to the team.

These inputs combine together to drive the second component of the framework—the *mediators*—which forms the middle step between inputs and the ultimate outcomes that the team delivers.

Mediators

Mediators combine to become the “magic sauce” that determines how effective a team will be. Mediators are not static; they are an ongoing feature of the team as the members work together. They can be either processes or emergent states, as follows:

* A *process* is an action taken by the members of the team, a way for inputs to be turned into outputs.[[6]](#footnote-6) A process can include various steps that help move the team forward (e.g., goal specification, planning, or strategy formulation). It may include action-focused behaviour (e.g., monitoring progress, coordinating people, or helping others on the team). It can also include interpersonal mechanisms (e.g., conflict management, morale building, or communication norms). These interactions or behaviours occur within the team.[[7]](#footnote-7)
* An *emergent state* is a cognitive, motivational, or affective condition. It may include beliefs, emotions, or attitudes that team members experience, including psychological safety, feelings of trust and cohesion, empowerment, team climate, or confidence. These feelings exist within the team.

The processes and emergent states (i.e., the behaviours that team members exhibit and the feelings and attitudes that they experience) developing within a team determine what the team is able to accomplish. These accomplishments or *outcomes*are the third component of the framework.

Outcomes

Outcomes are results from the team that are valued by some constituency.[[8]](#footnote-8) Usually, we consider as team outcomes the amount of work that the team has produced. Although outcomes may include performance in terms of quality or quantity of goods or services, they can also include less concrete factors, such as the affective reactions of team members (e.g., satisfaction or commitment), or even how well the team (or its members) have developed. For example, some innovative organizations consider it critical for teams to become smarter through the process of working with others, so they make that feature the primary goal of some teams. This would come with the expectation that these “smarter” team members will eventually share their knowledge or use it in the future to build innovation. Organizational leaders should decide carefully what outcomes they hope to get from their teams.[[9]](#footnote-9)

Research Examples Connected to the IMO Framework

A great deal of research has been done on the IMO framework over the years, and results have been supportive of the model. Although listing all the studies that have been completed is beyond the scope of this note, some examples are outlined below:

* *Relationship between Inputs and Mediator:* One study showed that team-based human resource policies (input: organizational level) led to higher levels of team engagement (mediator: emergent state).[[10]](#footnote-10)
* *Relationship between Mediators and Outcomes*: A study found that empowerment (mediator: emergent state) had a positive impact on customer service, job satisfaction, and organizational and team commitment (outcomes: performance and affective reactions).[[11]](#footnote-11) Another study found that transactive memory—the degree that team members rely on each other for complementary knowledge or skills (mediator: team process)—was related to the ability of top management teams to follow both exploitation and exploration strategies at the same time. This concept is otherwise known as an ambidextrous approach (outcome: performance).[[12]](#footnote-12)
* *Relationship between Inputs, Mediators, and Outcomes:* A study found that a shared leadership structure (input: team level) led to psychological safety (emergent state: mediator), ultimately leading to higher team performance (outcome: performance).[[13]](#footnote-13)

The Influence of Time on the IMO framework

The three IMO components (inputs-mediators-outcomes) are critical to team effectiveness, but researchers have also found that time has a critical effect on team functioning in a couple of ways.[[14]](#footnote-14)

First, developmental processes unfold over time (see the solid line at the bottom of Figure 1). This means that as a team works together, it matures and develops due to the experience of members interacting with each other. For example, team members learn about each other’s expertise and working style over time, allowing for better focus and coordination of the work. Therefore, a team that has been together for some time will work differently from one that has just been formed.[[15]](#footnote-15)

Second, time can lead to the prioritization of different tasks, and teams often go through episodic cycles or a series of predictable events. For example, we can imagine a project management team that goes through a proposal phase, which is followed by planning tasks, then monitoring events, and finally reporting steps. All of these episodes will happen in sequence for essentially every project. These episodic events can serve as feedback loops (see solid and dashed lines connecting components in Figure 1). As the team transitions from one episode to another (e.g., from the proposal phase to planning tasks), the team members’ experiences can influence earlier model components (i.e., mediators and inputs) for the next event. Specifically, as the team achieves particular outcomes, the experience may affect the processes and emergent states of the team for the next event. The outcomes and mediators can even affect the team inputs, although to a lesser extent (as depicted by the dashed lines in Figure 1).[[16]](#footnote-16)

Conclusion

Clearly, teams are a complex concept, and it may be difficult to predict with complete accuracy how any particular team may develop and perform over time. As the Las Vegas Golden Knights showed the world, the individual pieces of a team can sometimes combine in miraculous ways to achieve stunning results. Bystanders that have tried to uncover the magic formula that led to this hockey success tend to focus on discrete pieces (e.g., the coach, the general manager, or the goaltender).[[17]](#footnote-17) This approach focuses solely on inputs—only the starting part of the story. To understand what makes a team effective, we have to look more deeply at what happened within the team interactions over time. For example, what team processes and emergent states developed within the Golden Knights?

Looking at the team processes would likely provide more insight and maybe even allow us to take steps to replicate the team’s success. By understanding the IMO framework of team effectiveness, leaders can be better poised to provide support to teams to reach peak effectiveness. This can entail ensuring that there are strong inputs at the individual, team, and organizational levels; promoting positive processes and emergent states; and carefully defining and measuring the outcomes that are valued.

1. Matt Rybaltowski, “Vegas Golden Knights Reach Stanley Cup Finals in First Season,” *The New York Times*, May 20, 2018, accessed July 4, 2018, www.nytimes.com/2018/05/20/sports/golden-knights-stanley-cup-finals.html. [↑](#footnote-ref-1)
2. “Panthers Fire Coach Gerard Gallant,” NHL.com, November 28, 2016, accessed July 4, 2018, www.nhl.com/news/gerard-gallant-fired-as-florida-panthers-coach/c-284141932. [↑](#footnote-ref-2)
3. Jamie C. Gorman, “Team Coordination and Dynamics: Two Central Issues,” *Current Directions in Psychological Science* 23, no. 5 (2014): 355–360. [↑](#footnote-ref-3)
4. Steve W. J. Kozlowski and Bradford S. Bell, “Work Groups and Teams in Organizations,” in Irving B. Weiner, Neal W. Schmitt, and Scott Highhouse, eds., *Handbook of Psychology: Industrial and Organizational Psychology*, vol. 12 (London, UK: John Wiley and Sons, 2003), 333–375. [↑](#footnote-ref-4)
5. Daniel R. Ilgen, John R. Hollenbeck, Michael Johnson, and Dustin Jundt, “Teams in Organizations: From Input-Process-Output Models to IMOI Models,” *Annual Review of Psychology* 56 (2005): 517–543. [↑](#footnote-ref-5)
6. John Mathieu, M. Travis Maynar, Tammy Rappy, and Lucy Gilson, “Team Effectiveness 1997–2007: A Review of Recent Advancements and a Glimpse into the Future,” *Journal of Management* 34, no. 3 (2008): 410–476. [↑](#footnote-ref-6)
7. Michelle A. Marks, John E. Mathieu, and Stephen J. Zaccaro, “A Temporally Based Framework and Taxonomy of Team Processes,” *Academy of Management Review*, 26, no. 3 (2001): 356–376. [↑](#footnote-ref-7)
8. John Mathieu, Tonia S. Heffner, Gerald F. Goodwin, Eduardo Salas, and Janis Cannon-Bowers, “The Influence of Shared Mental Models on Team Process and Performance,” *Journal of Applied Psychology* 85, no. 2 (2000): 273–283. [↑](#footnote-ref-8)
9. Mathieu, Maynar, Rappy, and Gilson, op. cit. [↑](#footnote-ref-9)
10. Bradley L. Kirkman and Benson Rosen, “Beyond Self-Management: Antecedents and Consequences of Team Empowerment,” *Academy of Management Journal* 42, no.1 (1999): 58–74. [↑](#footnote-ref-10)
11. Ibid. [↑](#footnote-ref-11)
12. Ciaran Heavey and Zeki Simsek, “Distributed Cognition in Top Management Teams and Organizational Ambidexterity: The Influence of Transactive Memory Systems,” *Journal of Management* 43, no. 3 (2017): 919–945. [↑](#footnote-ref-12)
13. Jay B. Carson, Paul E. Tesluk, and Jennifer A. Marrone, “Shared Leadership in Teams: An Investigation of Antecedent Conditions and Performance,” *Academy of Management Journal*, 50, no. 5 (2007): 1217–1234. [↑](#footnote-ref-13)
14. Mathieu, Maynar, Rappy, and Gilson, op. cit. [↑](#footnote-ref-14)
15. Steve W.J. Kozlowski, Stanley M. Gully, Earl R. Nason, and Eleanor M. Smith, “Developing Adaptive Teams: A Theory of Compilation and Performance across Levels and Time,” in Daniel R. Ilgen and Elaine D. Pulakos, eds., *The Changing Nature of Work Performance: Implications for Staffing, Personnel Actions, and Development* (San Francisco: California, Jossey-Bass, 1999), 240-292. [↑](#footnote-ref-15)
16. Marks, Mathieu, and Zaccaro, op. cit. [↑](#footnote-ref-16)
17. Sean McIndoe, “Welcome to Impossible: The Golden Knights and the NHL Miracle that Makes No Sense,” *The Guardian*, May 22, 2018, accessed July 23, 2018, www.theguardian.com/sport/2018/may/22/vegas-golden-knights-stanley-cup-nhl-success-reasons. [↑](#footnote-ref-17)