

# **NEW DIRECTIONS IN TEAM PERFORMANCE**

**A two-part series**

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# TEAM ROLE THEORY

## Applying a scientific approach to team effectiveness

by Marsha Egbert

The economic environment over the last two years has created significant challenges for many companies. Positions have been slashed and organizational restructuring has brought people together in new teams. In many cases, businesses are treading water and looking for every opportunity to cut costs. New competitive pressures are creating new expectations to be delivered, and the cost of managing their number-one resource, people, is not coming down anytime soon.

Increasingly, companies facing challenges such as these are looking to Lean Six Sigma to help improve performance and achieve strategic goals. Some quickly master the data side of improvement but struggle to create high-performance teams and shift the culture to where Lean Six Sigma becomes “the way we do things around here.” In fact, it has often been said that the heart of a successful Lean Six Sigma initiative is motivated teams.

There is a discipline called Team Role Theory that can help with these soft-side challenges of implementing Lean Six Sigma. Team Role Theory has been used for decades by companies around the world to improve personal, group, and organizational effectiveness, and is start-

ing to gain popularity in the field of quality improvement. In this article, I'll explain Team Role Theory, give examples of how it's been used effectively in the workplace, and offer some ideas on how you can use Team Role Theory to improve collaboration at all levels in your organization, whether your concern is pumping up a corporate wide Lean Six Sigma deployment or simply getting a team to stop squabbling and start producing.

### Hard Science Behind Soft Skills

Have you ever wondered why certain teams run smoothly and others just limp along? Three decades ago, British social scientist R. Meredith Belbin wondered precisely the same thing. He got the opportunity to answer that question. Working with Henley College (in the U.K.) on groundbreaking research into what makes a team succeed or fail, Belbin discovered that selecting teams according to commonly assessed traits—intelligence, for example, or personality type—was **no guarantee of a team's success**.

He also discovered that **teams made up of similar people tended to do worse than**



teams that were picked according to other criteria.

Eventually, his research revealed that the difference between teams that consistently achieved success and teams that struggled to meet expectations depended on how well nine team-related “jobs” were executed. He discovered that individuals varied in their ability to execute these jobs (which he labeled **team roles**) and developed a method for predicting whether an individual would be effective in a particular team role. This body of research has come to be known as **Team Role Theory** and is used across the globe to help teams succeed. I’ll first give a brief introduction to Belbin’s discoveries, then explain some of the applications I see.

### *Nine Roles of Team Balance*

Naturally, Belbin wanted to understand what attributes—and particularly, what *combination* of attributes—increased the odds of having a team that performed very well. Because the results of the teams were measurable and the composition of team members was known from the standpoint of individual test scores on personality, intelligence, and other tests, Belbin was able to analyze the attribute combinations present in successful teams and absent in failed teams.

In one of his most surprising discoveries, Belbin found that the **individual** skill or excellence of team members was **not** a predictor of a team’s results.

**What mattered most was whether there was the right combination of team-related skills on the team.**

He ultimately developed descriptions for nine different team roles representing those key skills and clusters of behaviors. The roles fall into three categories:

- **Thinking**— requiring individuals that are good at generating and/or evaluating ideas rationally
- **Taking action** – requiring people who will make change happen
- **Connecting with people** – requiring individuals who are skilled at helping the team work smoothly internally and/or help secure support and commitment from outside the team

Table A (next page) summarizes the nine roles and the types of contributions they make to effective teamwork.

Belbin developed methods for evaluating both individual “team role” strengths and weaknesses, and for evaluating the **balance and imbalance** of strengths and weaknesses on a team. Balance usually means having all team roles represented on a team. That does *not* mean you need nine people on a team; most people can effectively execute more than one of the jobs (team roles), so even teams as small as three people can combine to form a balanced team (if the three are chosen carefully).

High performing teams achieve a balance of team roles. But many teams are held back because imbalance, which comes in two forms:

- **Voids** - a team role isn’t represented. For example, a team without a person who can bring energy to the team (someone with strong Shaper role attributes) will often be slow to take action. One without Resource Investigator skills may have trouble linking to the rest of the organization



(in terms of getting support, ideas, and resources from outside the team) and may have a tough time implementing the team's ideas (because of a lack of buy-in).

- **Surpluses** - a team role is over-represented. If you have been on a team with too many creative individuals (“Plants” in Team Role language), for example, you probably had a hard time getting anything done because these people love talking about ideas and aren't so enthralled with practicalities.

Belbin's research also showed that:

- We are all strong in some of these roles and weak in others.
- Every role tends to come with “allowable weaknesses” that are part of the package. The kinds of thought processes that make people with Plant skills great at coming up with new ideas also tend to make them absent-minded. You can't get their creativity without also getting the absent-mindedness—and may have to develop a very good reminder system if you have

Table A

Role Name	Contribution	Key characteristic
Plant	Creative, imaginative, unorthodox. Solves difficult problems.	Thinking
Monitor/Evaluator	Sober, strategic and discerning. Sees all options. Judges accurately.	
Specialist	Single-minded, self-starting, dedicated. Provides knowledge and skills in rare supply.	
Shaper	Challenging, dynamic, thrives on pressure. Has the drive and courage to overcome obstacles.	Taking action
Implementer	Disciplined, reliable, conservative and efficient. Turns ideas into practical actions.	
Completer / Finisher	Painstaking, conscientious. Searches out errors and omissions. Delivers on time.	
Resource Investigator	Extroverted, enthusiastic, communicative. Explores opportunities. Develops contacts.	Connecting with People
Coordinator	Mature, confident, a good chairperson. Clarifies goals, promotes decision-making, delegates well.	
Team Worker	Cooperative, mild, perceptive and diplomatic. Listens, builds, averts friction, calms the waters.	



several individuals who display the Plant talents on your team!

- Teams work best when they have a mix of roles—in fact knowing the mix of roles will help you *predict* how successful a team can be (as I'll discuss next).

## Validation of Belbin's Model

Of course, Belbin's ideas didn't just stay *ideas*. He tested his Team Roles theory in trials—simulated management exercises in which several teams competed against one another. Figure 1 (below) shows the results of one set of simulations at the end of Belbin's nine years of research where he was predicting the performance of teams whose membership he had no influence over.

### *How to interpret the graph:*

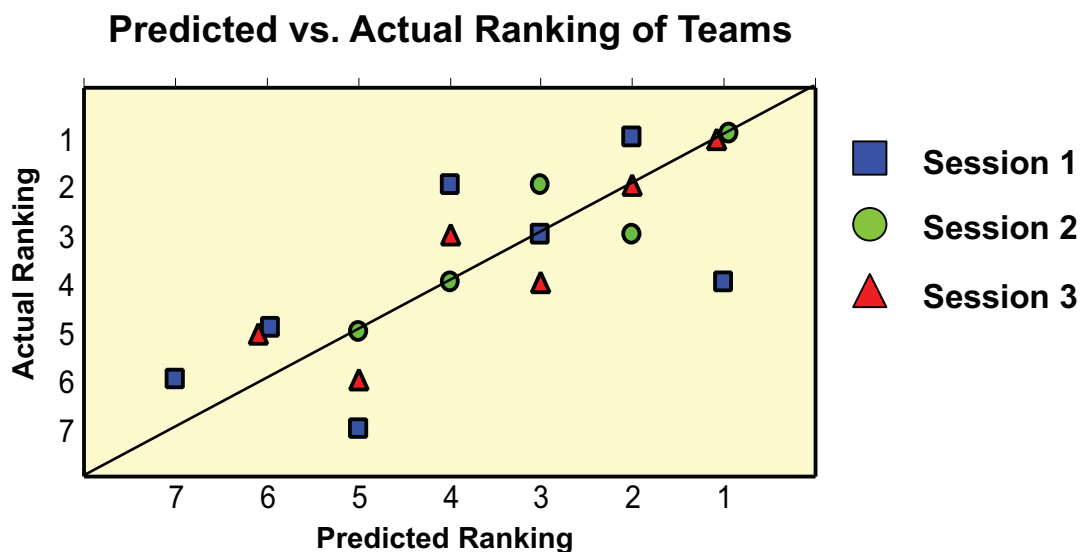
- The symbols on the graph represent the different teams that participated

in management simulations (18 teams in all).

- Any symbols that fall on the diagonal line represent *exact matches* between Belbin's predictions about how well the team would do and its actual performance (he hit the mark exactly for 6 of the 18 teams).
- All other points represent cases where the predicted and actual performance differed—but note that, in each case, the predictions were within a one or two ranks of the team's actual performance.
- There are no cases where Belbin completely missed the mark in terms of predicting team performance.

As you can see, Belbin's predictions were either extraordinarily accurate or within two ranks of the final result. The statistical correlation on this chart is an **accuracy rate of 86%**—even though he hadn't picked the team members.

Figure 1: Belbin's Model is Predictive



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This is one of the most exciting applications I see—**using Belbin’s Team Role Theory would allow us to build and develop teams whose performance isn’t simply a matter of chance, but of science.**

## Examples of Team Role Theory in Action

As I mentioned, Belbin first developed his theories more than three decades ago. Since that time, application of his ideas has run the gamut from helping an individual understand why he or she is having problems in one area to creating high performance Six Sigma teams to changing entire corporate cultures. There are several dimensions of personal performance that are addressed by Belbin’s theory:

- 1) Improving the amount of “coherence” between what an individual feels are their strengths and what others perceive
- 2) Playing to your individual strengths in a team setting
- 3) Shifting culture

### 1) Improved “coherence”

When June, an administrative assistant, went through a Team Role analysis, it turned out she had what Belbin calls “high coherence.” In other words, the way she perceived herself was very similar to the way that others perceived her.... with one major exception. Other people recognized in June very strong people and communication skills that they thought would equip her to play the Coordinator role effectively. What they saw was that she was a natural team-leader type, skilled at keeping team members pulling in the same direction. But

June had never before envisioned herself taking on that kind of team role responsibility.

Yet as June thought about this more, she realized that to grow professionally and personally, she could muscle up the nerve to try playing the Coordinator role. She began being more deliberate and assertive in making sure that all the work her teams needed to do got delegated appropriately and was completed on time. She flourished in this new role, taking on more and more Coordinator-related responsibilities over time, which not only gave her greater job satisfaction but also helped her teams deliver results faster and more effectively.

*Commentary: Many, many of your employees have talents that may be hidden to them but obvious to others. Performing a Team Role analysis can help you make sure that you’re taking advantage of these hidden talents on your Lean Six Sigma teams.*

### 2) Playing to individual strengths

Pete had a meteoric career in realty, quickly rising to the top and staying there for a number of years. Another company recognized his success by offering him the chance to manage real estate sales in one of its regional divisions. Pete jumped at the chance for career advancement. He approached his new job with enthusiasm, eager to prove himself an able leader.

Unfortunately, things didn’t go well at first. After a few months, his division had fallen to having the worst sales performance of any in the company. Because Pete’s total compensation was heavily tied to the divi-



sion's sales performance, he was now making less than half of his income at his previous employer.

After going through Belbin Team Role training, Pete realized that he had been equating “leadership” with the Coordinator role—which was one of his weakest areas. He had far too short an attention span, did not really enjoy detailed follow-up, and tended to dominate meetings. That was why his team was constantly behind and people felt they weren't given a chance to contribute.

One of Pete's first moves after studying his Belbin profile was to hire a strong Coordinator as his second-in-command. With that person in place, Pete focused more on what he did well: connecting with resources and opportunistically pursuing new leads (behaviors typical of the Resource Investigator role). In a remarkably short timeframe, his team made a complete turnaround, becoming the most successful division in the company (and ultimately doubling profits within six years). See Figure 2 (below).

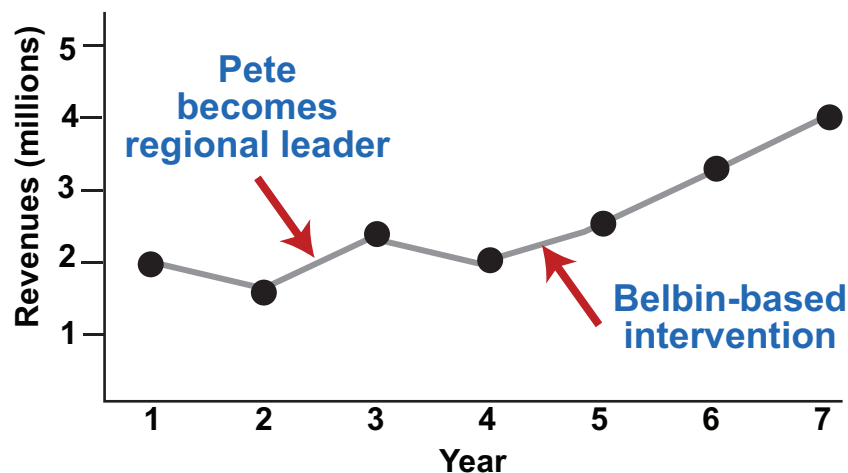
*Commentary: In this case, the failure of a leader to play to his individual strengths severely hindered the performance of an entire division. The same thing happens within Lean Six Sigma teams, work groups, or even entire departments. As Belbin demonstrated, teams perform best when everyone on the team—team leader and team members alike—are aware of their strengths and can both capitalize on their talents and compensate for weaknesses.*

### 3) Shifting corporate culture

We all know what kinds of pressures the newspaper industry has been under in recent years. The leadership team at Canada's leading newspaper, *The Globe and Mail*, knew the company faced extinction if it did not transform its culture from “old conservative” to being a true innovator. The leadership made Team Role Theory a key ingredient in 30 new teams, each charged with different aspects of innovation.

They now report outstanding results from several teams and good results from most others, and the discovery of several natural

Figure 2: Understanding Belbin Improved Leadership and Results





leaders (skilled in harnessing the full power of their teams) who would likely not have come to the forefront otherwise. They have already implemented several major innovations in the newspaper, and have totally revamped the physical layout of the editorial/ online offices.

*Commentary: Having the ability to uncover, share, and think through ideas from many people is critical to innovation, something that was a strategic imperative for the Globe & Mail and is increasingly being given as a reason why Lean Six Sigma is being adopted. But that's not the only kind of culture shift involved here. As experienced practitioners know, getting the most out of a Lean Six Sigma deployment requires a change in corporate culture, one where data starts taking precedence over hunches and where collaboration and sharing of knowledge is valued over silos. Application of Team Role Theory can help companies get the most from their people resources and then employees thrive under a new culture that demands both the rigor of scientific investigation and free-thinking creativity.*

## Imagining the Possibilities

These three applications represent just some of the possibilities for using Belbin's work to improve team performance. Having the ability to evaluate both individual strengths and weaknesses and to understand how different combinations of strengths and weaknesses can affect group performance has enormous potential. Here are just a few other applications I foresee

- Evaluating what talents are needed for the company to *reliably* and *predictably* create high-performance improvement teams
- Recruiting and hiring people who not only have the required business expertise or skills but who will also be the *best fit* for the organization
- Making wise investments in existing people resources
- Establishing better *processes* of interaction for the organization (such as decision making, feedback, problem solving) as a result of better teams/collaboration
- Engaging employees fully in their jobs; providing intrinsic rewards on the job vs. monetary or other external rewards (all part of the larger picture of employee motivation and retention)
- Improving collaboration at all levels—in a meeting, within a work group, between work groups

Best of all, these benefits arise from methods that have proven science behind them and decades of practical application.

Obviously, Team Role Theory cannot solve all of the challenges facing companies and teams today. But the match between many of our challenges and Belbin's model seems strong, and I hope more companies will explore this promising discipline.



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*than 25 years of experience aligning human capital with business needs for profitability, serving as a Human Resources Director, an organization development specialist, and HR generalist in diverse industries such as technology, consumer products, industrial manufacturing, and customer relations and support. She has also worked with a major Lean Six Sigma deployment. Marsha has been a key business partner, change agent, and facilitator in environments undergoing start-up, rapid-growth, domestic/international market expansion, mergers and acquisition), as well as turn-around, financial restructuring, and operational consolidation/downsizing.*

# THE POWER OF SELF-DISCOVERY

How to create high performance individuals, work teams, and organizations through experiential learning

by Max Isaac

Jim, a newly appointed COO, approached me and my colleagues a few years ago seeking advice on how he could put his stamp on the organization he had just joined. As we talked it became evident that Jim had a strong belief in the power of collaboration. A challenge he faced was that there were several very strong work groups in his company that operated as silos. His mandate was to create greater cross-team collaboration between groups. Shareholders believed that such cooperation was critical to the company's future in the marketplace.

As with Jim's company, many of today's most important business problems and opportunities can only be addressed if there is a high degree of collaboration across teams, work groups, departments, and even companies. This is particularly true in organizations trying to embrace Lean Six Sigma or another improvement discipline as an engine for higher performance.

Yet cross-silo friction often acts as a barrier to innovation and improvement.

There are many approaches to trying to address this challenge. The driving philosophy behind my company's approach is that self-discovery is powerful educational tool, and is the most effective way to develop new behaviors required to support a collaborative culture.

For Jim's company, for example, we first put all key players in the various groups through

a "Team Role" evaluation that gauged their personal strengths and weaknesses when it comes to engaging in the different kinds of work teams must accomplish. That was followed by a workshop where they participated in a series of group exercises and saw for themselves how the combination of team strengths and weaknesses on the team affected the outcome.

We then took the management teams of the non-collaborating groups through a special workshop that focused on the skills of leadership required for collaboration. Finally we guided joint sessions with the groups that needed to collaborate in which the team members *themselves* talked through the results from the evaluations and workshops. In doing so, the teams realized why they seemed to continually struggle to get work done, and developed new guidelines that would take advantage of everyone's team strengths.

Jim credits this intervention with helping the company to reach greatly improved levels of cooperation as the norms in the company changed and a culture of collaboration was established. **This kind of excellence in interpersonal skills is a critical element in any company that is adopting an improvement mindset and trying to use Six Sigma (or any other improvement discipline) as a competitive edge.**

Is it really possible for a few workshops and a team role evaluation to fundamentally



change how people interact? I've seen it happen time and time again. There are few overnight miracles using the methods my colleagues and I propose, but they have successfully changed the course of hundreds of teams and work groups in many different types of organization. In this article, I'll describe the principles behind this experiential and science-based approach.

## From Pedantic to Socratic

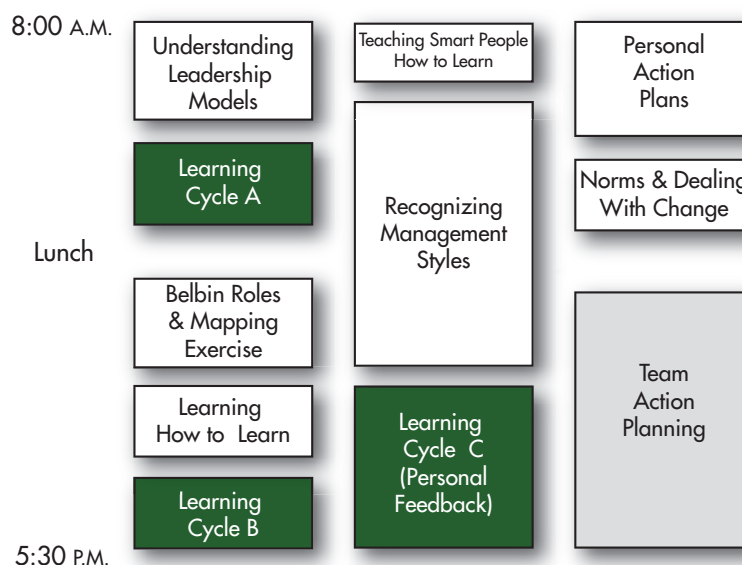
The experiential learning model my company uses isn't quite pure Socratic; we don't use a series of questions to drive participants towards the realization of universal truths or anything like that. But it is closer to the notion of guiding people to self discovery than the pedantic, lecture-driven approach used in many training programs.

The basic format of what we call our Team Acceleration program, for example, is putting participants through cycles of learn-

ing in which they work as a team to answer questions on materials they have read. We have a well-constructed method of demonstrating whether the team as a whole has done better than any single individual. We then have the team go through a structured review of what went well and what did not in the session. This cycle is repeated several times until the participants master the skills of playing to its members strengths and learn to balance advocacy and inquiry.

The teams work very independently interspersed with minimal instruction and a lot of discussion. Teams rate themselves after each exercise (what we call Learning Cycles), and therefore can see *measurable improvement* in results the more they apply the fundamentals we are giving them. They end up convincing themselves that **knowing how to tap into the knowledge of all team members makes the team much more effective overall**. Participants can then also begin to see how the new way to think about how to make teams work at peak efficiency has practical value in their lives.

Figure 3: Workshop structure





(Six Sigma practitioners will recognize this as a basic application of PDCA in which participants “check” their results and decide what actions they can take to improve the next time around.)

Figure 3 (previous page) shows one example of a workshop format we use. As you can see in the diagram, in this case the teams go through three learning cycles over the course of two days, then spend a final day developing specific action plans for themselves as individuals and for their teams. This particular workshop was for managers, so included an opening session on leadership models, and a session on the second day where participants learn how to identify their own personal leadership style (again, a self-discovery element).

Figure 4 shows the kind of measurement that we have teams do in each Learning Cycle.

This particular data was collected after the first Learning Cycle in a workshop, so we provided benchmark results from a high-performing team so participants would have the means to gauge for themselves how poorly they performed on team behaviors. In later cycles, they are comparing themselves against their own baseline performance.

The other key component for the purposes of self-discovery is **application of the Belbin Team Role Theory**. The Belbin model is discussed in detail in a companion article to this one. Very briefly, through a series of studies conducted over nine years, Meredith Belbin discovered that there are nine distinct jobs a team must perform in order to reach peak performance. He called these jobs “team roles,” and developed a method

Figure 4: Example results from a Learning Cycle

	Team XYZ	Benchmark Example effective team
Top score is 5 points per category. Maximum overall score = 30 points.		
Goal Setting and Alignment	0	4.5
Planning Team Processes	2.5	3
Assigning Responsibility	0	3
Discovery of Data	3.5	4
Handling Conflict and Making Decisions	1	5
Learning/Feedback	1	2.5
<b>Score</b>	<b>8</b>	<b>22</b>

for evaluating how well each person on a team could fill each role.

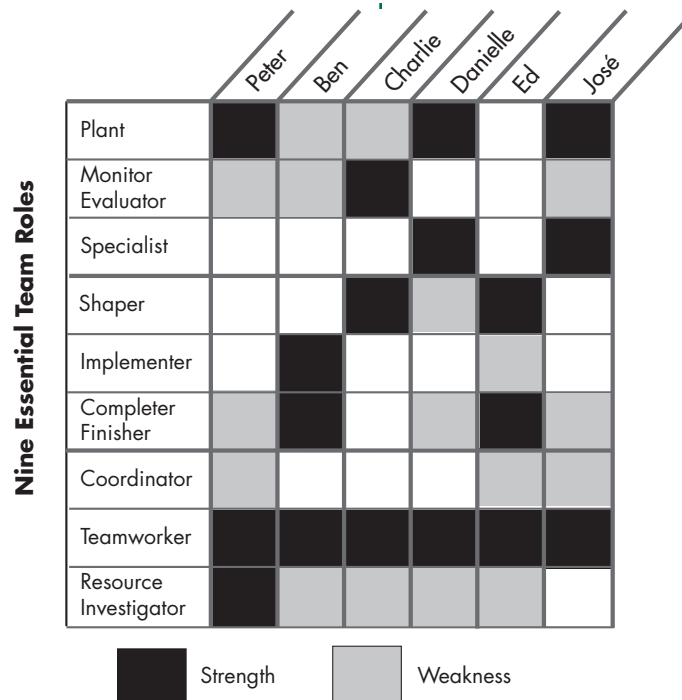
What my colleagues and I particularly like about Belbin’s body of work is its scientific basis. It is *predictive* in that you can tell ahead of time how well a team will do based on the mix of team roles and *diagnostic* because it quickly uncovers likely root causes of conflict or ineffectiveness within a team. Used in either manner, application of Belbin’s model let’s you proactively adjust team composition or what team roles different members need to play in order to create a high-performing team.

The tool we advocate for using Belbin’s model in an experiential learning course is called **team role mapping**.

Each team member goes through an individual analysis of their team role strengths



Figure 5: Team Role Map



and weaknesses, then the results are compiled in a single table, as shown in Figure 5 (above).

As you can see, the nine team roles that Belbin identified are listed down the side of the table. Team member names go across the top. The shading of the boxes indicate how well each person could play each role.

- Dark boxes indicate areas of strength  
EX: Peter is strong in the roles that Belbin calls Plant, Teamworker, and Resource Investigator
- Grey boxes are areas of weakness  
EX: Danielle is not very good at the Belbin roles of Shaper, Completer/Finisher, and Resource Investigator
- White boxes indicate intermediate ability in a particular role  
EX: José is only moderately good at being a Shaper, Implementer, or resource Investigator

Interpreting the diagram is straightforward:

- Ideally, you want at least one dark box (a strength) in each row—because that means collectively the team has someone with a natural talent in each of the nine roles needed for success
- Too many dark boxes on the same row is an indicator of possible conflict because too many people will be trying to do the same kind of work
- Any row that has NO dark boxes is also a danger signal because it may mean that NOBODY is doing that kind of work

Using those simple rules, you can probably tell for yourself where the team depicted in Figure 5 will likely run into trouble. For one thing, there is a surplus of the Teamworker role—every person is strong in that role, as indicated by the dark boxes. Teams with an overabundance of Teamworkers are very likely to have trouble working through diffi-



cult issues because everybody “just wants to get along.” In contrast, *nobody* on this team is a strong Coordinator—meaning the team will have a hard time making sure all its work gets done.

By creating this kind of map for themselves, workshop participants immediately get visual clues about where their teams may falter either because there is too much of one kind of work going on or not enough. It gives them a tool they can use to both identify potential problems and develop solutions *on their own*.

## Other Examples of Self-Discovery

The companion article in this series (*Team Role Theory: A scientific approach to team effectiveness*) describes several other case studies where a self-discovery approach to correcting “human performance” problems led to huge changes in business outcomes. Here is one more case study:

The approach used by Jim to create a culture of collaboration was also employed by Xerox in the product development effort that ultimately led to the release of its innovative new ColorQube printer. The key issue was that there were two types of work groups: those representing the traditional copier design previously used in Xerox and the others representing a new solid-ink technology. The company’s goal was to blend the two elements into a groundbreaking new copier. But the product development effort kept experiencing delays because the two types of work groups simply couldn’t talk to each other.

To help them break out of that pattern, we started by taking the most influential people from the groups through a series of three-day workshops, similar to the design shown in Figure 3. That included doing a Belbin analysis of each person, and putting them through the activities described above.

What soon became clear was that each type of team had a predominance of a single Team Role style that was completely opposite in approach to that of the other team. One type valued creative, unorthodox work; the other favored sober evaluation. Having a different kind of approach (and different Team Role surpluses on each team) led to very practical problems. As Xerox says: “Before the training, the team found that parallel solutions developed by different groups often led to conflict.”

As a result of going through the process, the teams realized they were caught in a cycle of reinforcing their predominant team role style—each hiring “like” people. So both sides were imbalanced in different ways and closed to seeing issues from the viewpoint of their counterparts. Most importantly, all the players realized that *collectively* they could create a highly effective team with a terrific balance of roles—if they could learn to work together.

Again, according to Xerox, “The training helped the team identify ... problems before they began. As the team identified their strengths and weaknesses, they developed a better understanding of the group’s dynamics and how to better communicate to avoid problems.... By implementing Team Accelerator workshops, the ColorQube team learned how to draw on the strengths of each team member and work together to



create one of Xerox's largest product launches this year."

Furthermore, the self-discovery has had a profound impact on some of the individuals who participated in this training. One key executive found himself incorporating what he learned within his daily routine. "To be successful [as a leader], I have to play to my strengths and understand areas where I am not as strong," said the executive.

"Team Accelerator can help to resolve issues in the process before they become problems and minimizes duplication of work, to improve overall efficiencies," says another Xerox executive. "These workshops help the team recognize its potential and can really benefit each team member."

## Conclusion

The principle I've been discussing in this paper—that self-discovery is the most powerful learning tool we can offer to our employees—is not new. You probably know this to be true based on your own past experiences. My goal, however, is to encourage you to incorporate more self-discovery in the training your company offers. A data-based approach that allows people to gauge and improve their or their team's behavior is not just an invaluable learning model; it provides a basis for ongoing improvement that is central to a Lean Six Sigma philosophy.

As described in this paper, my colleagues and I have found that self-discovery has been a highly effective strategy when it comes to applying Belbin's Team Role Theory to help individuals discover their own strengths and weaknesses in terms of

contributing to their teams. We provide the basic theory and little expert guidance, but most of our work is setting up situations where participants have "aha" moments—instances where they understand at last why they struggle with some kinds of work and enjoy others, why some teams gel and others don't, why they are always at odds with some people or groups, why their teams "can't get along" with teams from other departments. People see for themselves how differences in team roles strengths and weaknesses either adds to or hinders effectiveness. And that opens them up for lessons they carry with them the rest of their lives.



*Max Isaac is the CEO of 3Circle Partners, a global consulting firm that specializes in implementing team-based management systems in major corporations and Lean Six Sigma deployments. He has more than 30 years of general management and consulting experience in North America, England, Europe and Asia. He is a leading expert in the field of leadership and organizational behavior. Max is the co-author of The Third Circle – Interactions That Drive Results, Setting Teams Up for Success and A Guide to Team Roles.*