Belbin – the way forward for innovation teams

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Abstract

This research has the purpose to investigate how the Belbin Team Roles methodology explains how Innovation Teams in a Research and Development (R&D) environment accelerate their innovation process through better teamwork. The approach for this research is to use the results of 730 respondents of the Belbin Team Role Self-Perception Inventory and the experience of delivering 68 Belbin feedback sessions where teams received their Belbin Team Result.

This research confirms that all individuals and teams have their own specific mix of Belbin Team Roles and consequently each team has a unique team innovation culture and climate. What the teams do have in common, is that the team members all benefit from knowing each other’s Belbin Team Roles and the effect of their own roles on the teamwork.

This article gives examples of individuals and innovation teams how they used the Belbin methodology for creativity, leadership styles and teamwork. As a result of this research, organisations, management, team leaders and team members can define ways in their R&D work and behaviour to achieve teamwork that is focused to achieve the purpose of their innovation team.

Keywords: Belbin, Innovation, Creativity, R&D, Research and Development, Team Roles, Teamwork, Leadership.

Introduction

In an R&D environment, creativity and innovation are top priorities. Having a team that is equipped for that job is of highest importance. Such a team must possess both the right hard skills and soft skills. Getting the hard skills on board is easy because employees must show their educational and experience background. Getting the right soft skills within a team is a more challenging task. Putting the best knowledgeable people in one team does not guarantee success – soft skills are equally important.

This article indicates how the Belbin Team Role methodology can help to improve creativity and innovation in the organisation. Belbin is used in this research to investigate how the Team Roles of the team members can help to identify how innovation teams could be formed in the best way using the right variation of Team Roles.

This article starts with an explanation of the Belbin and the Team Roles. An overall view of Belbin results shows the highest scoring Team Roles in and R&D environment. Leadership styles and the challenge of making mixed teams is addressed with some examples of teams struggling with it, and an explanation is
given of how the participants of a Creative Problem Solving Workshop should be selected to achieve the best results.

Useful cases and anecdotes that are described in this report give understanding insights into the power of the Belbin tool. The examples given are from author’s own observations, experience and interpretations.

What is the Belbin Team Roles methodology?
Belbin is a diagnostic tool for teams and individuals aiming for better teamwork. Belbin helps to discover the behavioural strengths and weaknesses of the individuals that you work with. It is used to help build high-performing teams, maximise working relationships, and enable people to learn about themselves.

To use Belbin, it starts with a personal behavioural on-line Inventory, which results in a team overview identifying who plays which Team Roles in a team. Dr Meredith Belbin defined a Team Role as: “a tendency to behave, contribute and interrelate with others in a particular way”. A Team Role tells you how team members behave when working in a team. There are nine Team Roles. Each Team Role has its particular strengths and allowable weaknesses, and each has an important contribution to make to a team. Team members complete the Inventory and receive their personal report. These reports identify Team Role preferences to allow an individual to appreciate their strengths and which behaviors should be cultivated for the benefit of the team, for individual development and career progression.

Belbin Team Roles methodology introduces the following description of the nine Team Roles:
1. **Plants** are highly creative and good at solving problems in unconventional ways.
2. The **Monitor Evaluator** is needed to provide a logical eye, making impartial judgments where required and to weight up the team’s options in a dispassionate way.
3. **Coordinators** are needed to focus on the team’s objectives, draw out team members and delegate work appropriately.
4. When the team is at risk of becoming too much inward looking and isolated, the **Resource Investigators** provide inside knowledge on the opposition and make sure that the team’s idea will carry to the world outside the team.
5. **Implementers** are needed to plan a practical, workable strategy and carry it out as efficiently as possible.
6. **Completer Finishers** are most effectively used at the end of a task to ‘polish’ and scrutinize the work for errors, subjecting it to the highest standards of quality control.
7. **Teamworkers** help the team to gel, using their versatility to identify the work required and complete it on behalf of the team.
8. Challenging individuals, the **Shapers**, provide the necessary drive to ensure that the team is kept moving and does not lose focus or momentum.
9. The **Specialist** has in-depth knowledge of a key area.
Possible Belbin applications are the following:

- Because Belbin can help to identify how the Team Roles and leadership styles influence teams, it acts as a diagnostic tool for teams and individuals aiming for better teamwork.
- Project leaders use Belbin at the start of the project so team members get to know each other.
- Project leaders use Belbin during the project to identify and discuss strengths and weaknesses in the team ways of working or in case there is miscommunication that could be explained with clashing Team Roles.
- Project leaders use Belbin to identify how to best lead the team and coach individual team members customized to their Team Roles, needs and behavior.
- Project leaders use Belbin to decide which candidate would best fit with the Team Roles that already exist in the team.
- Line Managers and Human Resources use Belbin for consulting employees who would like to have advice on further career development.
- Human Resources use Belbin to hire employees that fit the needs of the organization.
- Belbin is a self-diagnostic tool that support individual team members to raise self-awareness and personal effectiveness (for reference: www.belbin.com).

Research method

For this research the results are used of 730 R&D employees who had completed the Belbin Team Role Self-Perception Inventory over a period of 7 years. The Inventories are performed mainly by R&D teams in The Netherlands and UK. Most of the teams are cross-functional, including functions like Marketing, Supply Chain, and most of the teams are also cross-cultural employees. The participants complete the Belbin Inventory on-line. They take 15-30 minutes to complete the Inventory. After completion the respondents receive their personal Belbin report via e-mail.

The Belbin Reports used are:

- Individual reports:
  - Assessment Results (of Team Roles) in Rank Order
  - Self-Perception Team Role Profile
  - Counselling Report
  - Character Profile
  - Personal Work Style
  - Candidates’ Working Relationship (with colleagues and/or superior)
- Team report:
  - Team report
Research results

With 730 respondents, the R&D results for the respondents scoring ‘Preferred Roles’ give the following results in Table 1:

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Table 1: Numbers and % of participants’ scores on ‘Preferred Roles’ (N = 730)

Row 1: Belbin Team Roles
Row 2: Number of candidates who have this role as a ‘Preferred Role’ (N = 730)
Row 3: % Number of candidates who have this role as a ‘Preferred Role’ (N = 730)
Row 4: Average % of all preferred roles

Example: 167 respondents score Plant as a Preferred Role, this is 23% of the N = 730 respondents.

The table shows that:
- 23% of respondents have Plant as a preferred role, and 24% have Shaper.
- Scores close to 30% are for Coordinator, Monitor Evaluator, Completer Finisher, Teamworker, Resource Investigator and Implementer.
- 37% of the respondents have Specialist as a preferred role.
- On average all preferred roles have a score of 30%*.

* Because all roles on average are scored as ‘preferred’ by close to 30% of the respondents, the author asked Belbin Associates why this is. They replied that “The fact that all preferred roles are scored by close to 30% of the respondents means that there is a good mixture of people and this company does not recruit specific characters”.

A highest score for Specialist is to be expected in an R&D environment. A second score for Implementer indicates that the Specialists are applying and implementing their knowledge to practical solutions. A third score for Resource Investigator indicates that the scientists are not inward looking, but scouting for new options & possibilities outside the teams working field. We will discuss the Resource Investigator role later in the chapter about Creativity.

If we look at the Nicknames that Mr. Belbin has identified (that considers the top 2 preferred roles), the R&D employees score highest on Implementer and Specialist which leads to ‘Mr Fix It’. Nickname for the average of R&D personnel in this case is: ‘Mr. Fix It’

For an R&D environment this seems to be a healthy mix of (applied) science, scouting for options & opportunities and Implementation. We will discuss the
lowest scores for Plant and Shaper later when we talk about Creativity and Leadership styles.

Leadership styles in an R&D environment

In this R&D environment many of the teamleaders are Shapers. This research is performed in a R&D environment of a Fast Moving Consumer Good company, with many competitors and many launches of new products on the market. This asks for quick decisions, visionary leadership styles and a lot of energy. Maybe that is why most of the Product Innovation Teams that have done the Belbin Inventory, have a project leader that scores Shaper as one of the preferred roles.

The Shapers most of the time are high energetic people (sometimes on the edge of being irritating), always moving around with a sense of urgency and goal finding. Within an R&D environment they sometimes seem to be ‘fighting windmills’ as the pace of action and decision making in this environment is too slow for them. The reason why they are chosen as being the project leaders is obvious: R&D needs to deliver science to put products on the market as soon as possible, even if science cannot be pushed.

Scientist teams can find this type of leaders stimulating, even to the point of being ‘amusing’. But it can start to become irritating if the Shaper is too pushy on the content and/or not behaving in a socially acceptable way. At this point a good cooperation with a Coordinator can help, because a Coordinator can identify what would be the best way to instruct the team to get the job done. The Coordinator can be a gatekeeper between the Shaper and the team, where the Coordinator will ‘translate’ the energy bursts of the Shaper to the team by saying ‘What he/she really wanted to say is that if you do this and you do that, it will be OK’. It can be a perfect match: the Shaper as the bad guy, the Coordinator as a good guy. Several teams function well in this way where the Coordinator is seen as the ‘mother’ of the team. If there is no good Coordinator, and the verbal and non-verbal messages of the Shaper just does not seem to come through to the team, it may reach a point where the coherence in the team starts to be lacking. Having a project leader who has Coordinator and Shaper as combined preferred Team Roles can be both a problem and/or a benefit to the team, see Case 1: ‘A hell of a lady’ and Case 2: ‘Nice & sharp’.

Case 1: ‘A hell of a lady’:
This team had a teamleader scoring high on both Shaper and Coordinator. When asked: “Is it correct that most of the time you are this nice lady, but sometimes you can be hard to deal with?”, she said that she did not recognize that at all, and also her team members told me that she just is a very nice teamleader to work with. During a break one of the team members approached me to tell me that the teamleader is nice
with the team, but when it comes to talking to stakeholders and fighting for the project with respect to getting budget and resources, she can be a ‘hell of a lady’ to deal with.

**Case 2: ‘Nice & sharp’:**
Another team had a team leader also scoring high both on Shaper and Coordinator. When asking her the same question: “Is it correct that most of the time you are this nice lady, but sometimes you can be a hard to deal with?” this time the response was: “Yes, I do have difficulty balancing between being nice and sharp. Sometimes I can be so sharp that I upset people. I hate doing that and it takes me a lot of effort to set things right again. But I just cannot help myself, now and then I am not the nice person as people may know me. This Belbin test gave me this insight and now I know I need to work on it”. The team members who heard this confession stayed quiet, but they had meaningful looks to each other around the table, non-verbally expressing that the team leader had drawn some right and insightful conclusions about himself, of which they are hoping to profit from in future.

Some Shapers who also score Coordinator are surprised to see that they score low on Teamworker because they perceive themselves as a person who likes to work with others in a good way. A Teamworker is different from a Coordinator in a way that a Teamworker may lack the power to do the job when a strong person is needed if things just have to be said the way they are. For example if team members are not functioning in the team. A Coordinator can discuss this as a ‘case’. For a Teamworker it is an ‘emotional issue’ and he may lack the power to tackle the issue in a straightforward way. Case 3: ‘Team lacks coordination’ shows what happens if the team in this R&D environment does not have a powerful leader with either Shaper or Coordinator Team Roles.

**Case 3: ‘Team lacks coordination’**
A trainee asked the facilitator to do Belbin for the team because she felt something had to happen as the team was not functioning well. This is a surprise, because normally it is not a trainee who asks for a facilitator, but the team leader. While preparing the Inventory, it turned out that the team felt they lacked direction and leadership. The team did the Belbin Self-Perception
Inventory and gradually the results came in. However, the result of the Team Leader was missing. Despite that fact, we decided to go ahead with the Belbin feedback session. Also at the meeting the Team Leader was missing. The team consisted of a variety of Belbin Team Roles, where the trainee was the only person scoring as a Coordinator. There was no Shaper. This explains why the team felt ‘without guidance’ because they were lacking a strong Shaper and Coordinator. The team complained of not getting enough guidance from the Team Leader who seemed to be working on his ideas only, some even thought he was autistic with a seemingly inability to communicate well with his team. Of course the facilitator was curious to find out what the Team Roles of the Team Leader are. Finally the facilitator convinced the Team Leader to do the Inventory. He scored 95% Plant as single Preferred Role. Meaning he was much more passionate about creativity than with leading the team.

Case 4 ‘Teambonding as science’ is about a Leader who scores Shaper and Monitor Evaluator amongst a group of Scientists with high IQ, very knowledgeable and scoring strongly on Specialists, Monitor Evaluators, Implementers and Completer Finishers. The leader in this case had a ‘laid back’ leadership style, because the team was quite able to be a self-steering team, thanks to, or even though, there are 4 Shapers, see Table 3.

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Table 3: Profile of a science team (N = 13)

Case 4: ‘Teambonding as science’
The Team Role profile suggests a hard working group with not much attention to social aspects because this team only has 1 Teamworker. This person, a man, was almost ashamed of this ‘girl-like’ Team Role, as Teamworkers are often seen as ‘female care takers’. Considering this fact, the facilitator was surprised to see that this team was very much a cohesive team, happily engaging in teambuilding games and team outings. Asking the team why they do like to spend time together, the explanation they gave is that they have a
deep appreciation for each other’s expertise and knowledge and they know intellectually that team bonding is important to make sure there is ease of exchange of information between the team members, which will make the science better. A scientific explanation for team bonding!

In Case 4 we saw that there are 4 Shapers in the team. In his book ‘Management Teams. Why they succeed or fail’ Belbin says ‘Shapers have very definite pros and cons’. So let’s see what happens if there are too many Shapers in a team. R&D Leadership teams in this R&D environment often consist of several leaders who have Shaper as one of the Preferred Roles. This is a very interesting group, as they are all ‘fighters’ and they are only happy when a decision is taken as long as their ideas or opinions are part of it, like in Case 5: ‘Waiting for Shapers to decide’. The consequence is that these teams are unable to take decisions, and if a decision is taken, it is too complicated with a lot of plusses, minuses and buts, see Case 6: ‘Let’s decide NOW!’ and Case 7: “Project divorce’. Having read Cases 5-7, we must conclude again that the team in Case 4 was an extraordinary team because they have 4 Shapers, but still found a way of working where the Shapers did not override or obstruct the team progress. The reason for that is because these Scientists used their Shaper-energy for science, not for leading a team. Some examples of the cases are the following:

**Case 5: ‘Waiting for Shapers to decide’:**
A team has 8 Shapers, 6 Monitor Evaluators, 7 Implementers and no Completer Finishers. The Shapers all have visions and ideas, and by the time they seem to be ready to take a decision, there is always a Monitor Evaluator who will say ‘Yes, but if we do that, did we consider the consequences?’ And the frantic discussion starts again. Some plans were made, but not completely finalized and communicated to the organization. In this case the subordinates were waiting and waiting for the outcome of these Leadership Team discussions. The subordinates told me that they lost confidence in the Leadership Team because they had to find their own way, without clear and focused direction.

**Case 6: ‘Let’s decide NOW!’:**
A team consisting of 7 Shapers and 6 Monitor Evaluators is trying to organize a one-week introduction schedule for 50 students to learn more about the type of career they could offer them. The program contained
each day many items, some of them were only 10 minutes. Up until the final preparation week, the agenda was not finalized because they all wanted to add some more or take some more out. Only when they were confronted with the Belbin team profile of the team, they understood why they seem to be fighting over each decision. The team decided to have ONE leader and to take QUICK decisions without too much debate. From that moment on the preparations were ticked off more rapidly.

Case 7: ‘Project divorce’:
A project team with 2 project leaders, both being Shapers, found out the hard way how to deal with two Shapers at the top. After a lot of debate, discussions and arguments they decided to split the project into two distinct parts and they both were responsible for one part. As long as they did not cross the line, they, the team and the projects were OK.

What Belbin Team Roles are best suited for Creativity?
The creative Belbin roles are:
the Plant: ‘advancing new ideas and strategies’ (Ref. 2).
the Resource Investigator: ‘exploring and reporting on ideas, developments and resources outside the group’ (Ref. 2).

Belbin states that “plant managers are relatively uncommon in secure and established firms and organizations”. This is certainly the case at this R&D environment because the lowest score for Preferred Roles is for Plants: 23% of respondents score Plant as a Preferred Role (see Table 4).

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Table 4: Numbers and % of participants’ scores on ‘Preferred Roles’ (N = 730)

Is Belbin helpful to create a creative and innovative environment? When facilitating Creative Problem Solving Workshops, the author sees some individuals being very creative either using their own intrinsic creativity (Plant), to the extent that sometimes a Plant left the group and was sitting in a silent corner working on his/her ideas. Other participants (Resource Investigator) are more likely to build
uppon ideas of others, to the extent where Resource Investigators start to ‘steel’ ideas from other groups, or leave their group to join other groups.

Although Belbin does not refer to the Specialist as being creative, the author has a different opinion. According to Belbin the Specialists are dedicated individuals who pride themselves on acquiring technical skills and specialized knowledge (Ref. 2). The author: “In my view this is completely true, but I would like to add that thanks to their deep knowledge about specific areas, the Specialists are extremely creative in their field of expertise. Crazy thoughts, strange links or synergies expressed by Plants or Resource Investigators can give new creative insights. Specialists are able to translate those thoughts, links or synergies into applied practical ideas and/or opportunities because they know what they are talking about and they are able to make the creative connections between completely unconnected topics or thoughts. Creative discussions between Specialists consist of sentences like ‘What if we ...’, ‘Would it be possible to ...’, ‘Why don’t we try to ...’, ‘Have you ever done ....’, ‘Do we know anyone who can ...’, ‘Did you know that some years ago I tried to ...’. Also Specialists challenge themselves and/or others by making bold statements. One brilliant idea for an aerated detergent originated from a Specialist saying ‘Why don’t we go naked and let the air clean our body’. From my experience I can state that the Specialists are as creative as or even more creative as Plants or Resource Investigators”.

What is the best creative Belbin role combination?
From the experience of facilitating many Creative Problem Solving Workshops in an R&D environment, a combination of Plant (167 employees), Resource Investigator (229 employees) and Specialist (267 employees) seems like the best creative combination within an R&D environment. The table below shows the number of respondents (N = 730) that have one or a combination of two or even three of these roles.

<table>
<thead>
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<th>Team Role</th>
<th>Nr of respondents scoring these roles as preferred roles</th>
<th>% of total respondents N = 730</th>
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<td>RI + PL</td>
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<td>Total</td>
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Table 5: Plant, Resource Investigator and Specialist preferred roles present at an R&D environment
The table shows that only 2% of the R&D respondents score on all three creative roles Plant, Resource Investigator and Specialist. A combination of 2 out of the 3 creative roles is scored by: 8% (RI + PL), 6% (RI + SP) and 5% (PL + SP) = 19%. The conclusion is that if we consider a score of all three creative roles or a combination of two of them, then 2% + 19% = 21% of the R&D respondents are high in creative potential. In total 70% of all respondents have 1, 2 or all 3 of these creative roles as Preferred Roles. This must be a good score for an R&D environment where creativity and innovation is the key reason of existence.

The nick names for these creative roles are:
RI + PL: Explorer
RI + SP: Butterfly collector
PL + SP: Professor

Creativity is good for an organization, at the same time results and output need to be achieved. So, what happens if these two needs collide? Case 8 ‘Too creative for the team’ gives an example of how it can work out for the good, if the team follows the rule of Belbin that all Team Roles should learn that the combination of particular individuals rather than the merits of individuals themselves account for success. Case 9: ‘The death of a Research Investigator’ shows what happened with a team that did not make use of each other’s strengths and weaknesses to find complementary success.

**Case 8: ‘Too creative for the team’**

*This is about a hard working team, each team member doing their job OTIF (On Time In Full) with emphasis on Implementers, Completer Finishers and Specialists. A new team member joins the team filling the gap with 3 Preferred Roles the team is missing: Plant, Resource Investigator and Monitor Evaluator; clearly a creative person with sound judgment on his ideas. However, the team had no idea what this person could do for the team; they were unwilling to ‘let him in’, and even did not invite him to some meetings because he had no actual function in the team ‘yet’. Even if he was present at one of their meetings, the team members consider him as ‘coming from a different planet, talking another language’. The facilitator advised the team to make sure they incorporated this team member into their team because it could turn out that he is going to be the one with new ideas, networks and good judgment with respect to the role and future of the team. It will need a mutual effort to start understanding each other.*
A couple of months later, the team has a much better understanding of the new team member and he has a clear place in the team. They have accepted him and use his team-roles during discussions and brainstorming problems to look at issues from a different perspective. The team member is managing a new project in which he can use his creativity with broad view/angles. However, the team is ‘coaching’ him to make sure he keeps the project within time and scope.

Case 9: ‘The death of a Resource Investigator’:
This team applied the Belbin Self-Perception Inventory because there was tension in the group. It turned out that 7 out of 8 team members were Implementer as a preferred role, whereas the 8th person was a Resource Investigator. The Implementers were complaining about the Resource Investigator because he ‘was never in his room’, and ‘if he was in, he would be talking over the phone all the time’, and ‘he never seems to do any work, just talking, talking’. The Resource Investigator felt misjudged but could not explain why there was this tension. He could not figure out why they wanted him to do more ‘work’ because he felt he was working very hard, even if he was not sitting at his desk. During the Belbin feedback session it became clear that the Resource Investigator was networking, advertising the department and acquiring work for the department. The Implementers were not convinced of the added value of that work, after all ‘There is a lot of deskwork to be done, and we have to do all of your work too!”. After the Belbin feedback session the Resource Investigator decided to leave the department. As a result a new member was recruited. Everybody was really happy with this new person because he ‘fitted in so well with the others’. His preferred Team Role was: Implementer! 5 months later the department was re-organised. It turned out that they had less and less work to do. The department was a sinking ship without the Resource Investigator networking and finding clients for the department. The implementers worked hard, but never got to finding more work.
How is the creative potential used?
To make use of this creative potential the thought is to invite the people with best combination of roles to Creative Problem Solving Workshops. Participants subscribe for different reasons:
They like the objectives/topics of these Workshops;
They see these Workshops as an opportunity to do networking;
They know they can contribute from a science point of view;
They love to do creative things.
One would expect that the participants of these Workshops score high on Plant or Resource Investigator. To investigate this, a random selection of 16 participants out of 72 participants of Creative Problem Solving Workshops was scanned for their Belbin profile (see Table 6).

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Table 6: Belbin Self-Perception Inventory scores of 16 Participants (out of 72 participants)

This table indicates that 50% out of the 16 participants have a Resource Investigator as a Preferred Role. These Workshops are typically events where a Resource Investigator wants to be and needs to be in order to gain information, find new ideas that they may use in their own science area and to work their network. The Teamworkers 44% and Coordinators 38% score next, because these Workshops are also social events where they can meet colleagues and interact in a non-formal way while being creative and having fun. This is followed by a 38% of Monitor Evaluators because these Workshops are an ideal tool to find out what is happening with respect to the strategy of other research areas, something a Monitor Evaluator needs to know to make future judgments. Strangely enough Plant and Specialists score only 19%, where we would have hoped to have higher scores for these roles. Maybe these persons are too introvert to join such an event? Clearly Implementers and Completer Finishers score lowest because they do not want too much creativity to interfere with their line of thinking and working.

This overview can help us to identify who to invite if we want to invite the right participants to Creative Problem Solving Workshops. The organisation should aim for more Plants and Specialists if you want to have more creative ideas. This would mean a different set up of these types of Workshops where also Plants and Specialists feel safe to join, e.g. small scale workshop or individual consultations.

Conclusions
This article shows how an R&D environment uses Belbin with Innovation Teams who wish to accelerate their innovation process through better teamwork. It gives examples of teams and individuals with respect to creativity, leadership styles, making mixed teams and other cases that show the challenges and benefits of
using the Belbin Team Roles. The cases and anecdotes that are described in this report give understanding insights into the power of the Belbin tool.

It is recommended that Creative Problem Solving Workshops are set up in such a way that the more introvert Plants and Specialists will also join and that the full creative potential of these and all participants are used.

References:

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