AN EVALUATION OF BELBIN'S TEAM ROLE SELF PERCEPTION INVENTORY: TO HELP THE PROJECT OFFICE CONSTRUCT AN OPTIMAL TEAM

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ABSTRACT: *It is impossible for a human being to be perfect. However, a team can be. As organisations create flatter structures, the importance of team-work becomes clearer. Organisations have been pre occupied with qualifications for too long and have realised the fact that team work yields better results. Individuals cannot operate in their functional capacity alone, but must also belong to a team. An optimal team is a successful team. However, the project manager must ensure that he is aware of the various team roles each individual in the team possesses. The Belbin team roles are a vital starting point for devising a strategy to improve the overall effectiveness of a team. A carefully selected and balanced team will deal with complex issues faster, and outperform unbalanced teams and/or individuals. This paper highlights the strengths of using the Belbin model and the various weaknesses that the model suffers from.*

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Terms of Reference

'Information relating to the optimal interaction of individuals in teams could have a significant impact on project success'.

Given this thinking, evaluate how an understanding of Belbin's team role self-perception inventory can help the project office construct an 'optimal team'.

ABBREVIATIONS

BTRSPI   Belbin's Team Role Self Perception Inventory

OAS   Observer Assessment Sheets

LIST OF FIGURES

1. INTRODUCTION

As organisations downsize and become less bureaucratic, the importance of teams become even more crucial. Fewer layers produce greater team work. In the pre-industrial era, the criterion for assigning work was based on age, sex, tribe and class. This changed to qualifications in the industrial era. In the post-industrial era, this evolved to a person's team role and personal orientation. A combination of personality traits is vital, and the composition of a team is crucial to its success. Before an optimal team is created, the degree of complexity must be considered as this would inform the mix of individuals to be included in the teams. Belbin defines a *"team role as a tendency to behave, contribute, and interrelate with others at work in certain distinctive ways"*. He categorises them into 9 different team roles:

Belbin® Team Role Summary Descriptions

Team Role Summary Descriptions

Team Role	Contribution	Allowable Weakness
Plant	Creative, imaginative, unorthodox. Solves difficult problems.	Ignores incidentals. Too pre-occupied to communicate effectively.
Resource Investigator	Extrovert, enthusiastic, communicative. Explores opportunities. Develops contacts.	Over-optimistic. Loses interest once initial enthusiasm has passed.
Co-ordinator	Mature, confident, a good chairperson. Clarifies goals, promotes decision-making, delegates well.	Can be seen as manipulative. Offloads personal work.
Shaper	Challenging, dynamic, thrives on pressure. Has the drive and courage to overcome obstacles.	Prone to provocation. Offends people's feelings.
Monitor Evaluator	Sober, strategic and discerning. Sees all options. Judges accurately.	Lacks drive and ability to inspire others.
Teamworker	Co-operative, mild, perceptive and diplomatic. Listens, builds, averts friction.	Indecisive in crunch situations.
Implementer	Disciplined, reliable, conservative and efficient. Turns ideas into practical actions.	Somewhat inflexible. Slow to respond to new possibilities.
Completer Finisher	Painstaking, conscientious, anxious. Searches out errors and omissions. Polishes and perfects.	Inclined to worry unduly. Reluctant to delegate.
Specialist	Single-minded, self-starting, dedicated. Provides knowledge and skills in rare supply.	Contributes on only a narrow front. Dwells on technicalities.

Figure 1: Team Role Summary Description

These teams can be sub divided into 3 major groups: Action Oriented, (Shaper, Implementer and Completer-Finisher) People Oriented (Co-ordinator, Team-worker and Resource Investigator) and Cerebral Oriented (Plant, Monitor-evaluator and Specialist). All 9 team roles do not have to be present in a team at all times, as teams have different terms of reference and objectives. Every member of the team makes a unique contribution to the team. Belbin recommends a team of 6 people maximum as some of the roles listed above can be merged. He argues that if a team goes beyond this number, it becomes a group and not a team. A balanced team should have all the 3 major groups, with a team of 6 people. However the model has been criticised and some of this criticism will be discussed later in this paper. This paper will evaluate Belbin's Team Role Self Perception Inventory (BTRSPI) and how it can help the project office construct an optimal team.

2. USING BTRSPI TO CONSTRUCT AN OPTIMAL TEAM

Belbin's research led to the development of Belbin team roles. He grouped an individual's behaviour when participating in a team into 9 different clusters. His conclusion was that teams comprising a balanced mix of team roles outperformed unbalanced teams. When dealing with complex issues, a range of team roles are required. The Belbin Interplace computer system is used to process the results of the Belbin Self Perception Inventory. The Observer Assessment Sheets (OAS) is an additional/optional measure used between team members to assess each others' behaviour. Although the BTRSPI is primarily used, the OAS can also be relied on as an additional measure in assessing an individual's behaviour within a team. According to Belbin, team members have two key roles: a functional role and a team role. Buchanan and Huczynski (1985) also agree with this concept. The former considers the functional role the individual plays in an organisation, while the latter considers the team the individual fits into. This paper will focus on team roles. Hastings (1986) observes that a distinction has to be made between functional and team roles, for the team to function effectively. Everyone, in an organisation wants to be part of the winning team. Team morale will be boosted by success. Even though roles are assigned to people, advanced teamwork can be used to carry out difficult tasks. To choose, build and maintain a winning team the starting point for the project manager will be to allocate each individual to their most natural role using BTRSPI. An individual cannot be perfect but a group can be. After, the initial selection, the members of the team must work in their team roles and not in their functional

roles. Each person in the team must know what their primary and secondary team roles are and those of their team members with whom they interact. The Belbin team roles are an indispensable tool for project managers as it helps to devise a strategy that improves the overall effectiveness, performance and viability of the team. Figure 2 shows the strengths and weaknesses of each team role.

Team role	Descriptors	Strengths	Allowed weaknesses
Completer-Finisher (CF)	Anxious, conscientious, introvert, self-controlled, self-disciplined, submissive and worrisome.	Painstaking, conscientious, searches out errors and omissions, delivers on time.	Inclined to worry unduly. Reluctant to delegate.
Implementer (IMP)	Conservative, controlled, disciplined, efficient, inflexible, methodical, sincere, stable and systematic.	Disciplined, reliable, conservative and efficient, turns ideas into practical actions.	Somewhat inflexible. Slow to respond to new possibilities.
Team Worker (TW)	Extrovert, likeable, loyal, stable, submissive, supportive, unassertive, and uncompetitive.	Co-operative, mild, perceptive and diplomatic, listens, builds, averts friction, calms the waters.	Indecisive in crunch situations.
Specialist (SP)	Expert, defendant, not interested in others, serious, self-disciplined, efficient.	Single-minded, self-starting, dedicated; provides knowledge and skills in rare supply.	Contributes on a narrow front only. Dwells on technicalities.
Monitor Evaluator (ME)	Dependable, fair-minded, introvert, low drive, open to change, serious, stable and unambitious.	Sober, strategic and discerning, sees all options, judges accurately.	Lacks drive and ability to inspire others.
Co-ordinator (CO)	Dominant, trusting, extrovert, mature, positive, self-controlled, self-disciplined and stable.	Mature, confident, a good chairperson, clarifies goals, promotes decision making, delegates well.	Can be seen as manipulative. Offloads personal work.
Plant (PL)	Dominant, imaginative, introvert, original, radical-minded, trustful and uninhibited.	Creative, unorthodox, solves difficult problems.	Too preoccupied to communicate effectively.
Shaper (SH)	Abrasive, anxious, arrogant, competitive, dominant, edgy, emotional, extrovert, impatient, impulsive, outgoing and self-confident.	Challenging, dynamic, thrives on pressure, has drive and courage to overcome obstacles.	Prone to provocation. Offends people's feelings.
Resource Investigator (RI)	Diplomatic, dominant, enthusiastic, extrovert, flexible, inquisitive, optimistic, persuasive, positive, relaxed, social and stable.	Extrovert, communicative, explores opportunities, develops contacts.	Over-optimistic. Loses interest after initial enthusiasm.

Figure 2: The Strengths and Weaknesses of each Team Role

Four major factors were primarily used to find out what team roles would suit an individual. They were: intelligence, dominance, extroversion/introversion and stability/anxiety. Even though most individuals have a desired team role: (a primary role), they also possess

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secondary team roles they could play as well. An individual being able to successfully operate in more than one team role releases an optimal team from any constraints on numbers. Fisher et al (1998) divides the team roles into 2: task and relationship oriented. They argue that if an individual is relationship oriented the secondary role they will play will also be relationship oriented and vice versa. It is the interaction of the teams that differ. Team roles that are task oriented will not interact harmoniously or productively. Team roles that are relationship oriented will interact harmoniously but not productively. Team roles that fall into each category will interact harmoniously and productively. This is known as the rule of thumb. Shapers are task oriented and the task takes precedence. Co-ordinators try to fit the task to the personality and are relationship oriented. Both team roles complement and counterbalance each other, and are necessary in every team. The Wiggins model (1979, 1982) has close parallels with the Belbin model as 8 sub-groups were identified. Even though the Belbin model is criticised, it is a good starting point that helps to create an optimal team. It will help the project office keep to deadlines as the implementer will ensure this happens. The monitor evaluator is important when the team has to make crucial decisions.

There are other models available. Similarities can be drawn between these models and Belbin's. These include: Margerison and McCann (1985), Dimmock (1986), Handy (1976) and Tuckman and Jensen (1977). This paper will focus on the Tuckman and Jensen model. Originally, Handy (1976) considered that the team roles became clearer after the 2nd or 3rd stage and listed 4 stages. These are: Forming, Storming, Norming and Performing. All stages were necessary for development. The Tuckman and Jensen (1977) model added a 5th stage: Adjourning. The team has accomplished the task it was set up for and needs to adjourn or regroup. This model accepts the limited shelf life of teams and understands that teams pass through various stages to achieve task effectiveness. However this model has been criticised for the overlap between stages. Group members are simultaneously trying to build relationships and complete their tasks and the focus between the two shifts constantly. Similarly, Belbin's model can also be criticised because team roles change depending on the task and the members of the team. The secondary roles of an individual can become their primary role. However there is a tendency to stereotype an individual and confine them to particular roles which can cause conflict in the future for the individual who joins a different team. For example a Completer- finisher can feel threatened if he joins another group and that role is filled. The project manager must use the 5th stage in the Tuckman and Jensen model. The criticisms from both models suggest that both models cannot stand alone.

3. CONCLUSION

An increasing number of companies have adopted BTRSPI. It is useful to describe an individual's preferred team role and indicate how each individual will operate in a team environment. 30% of people tested did not fall into any of the 9 categories. Strength in a team role is often at the price of what might be considered a weakness in another context. A project manager must know what roles are over represented or absent and understand an individual's secondary role. With experience, team roles will change. Team roles should be shared to meet mutual expectations. Project managers need to avoid what Belbin (1981) termed the "Apollo Syndrome"- picking a team that is exclusively composed of clever people, ultimately will be disaster prone.

There are special advantages in having a full and balanced team. Absence of one team role weakens any team, but the presence of too many of one type produces predictable kinds of failure. Belbin recommends that 4 people can be used to produce an effective team. It all depends on the project and a balanced team may not always be necessary. Various models have been developed but heavy reliance on one model should be avoided.

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TEMPLATE FOR SOURCES USED

1. **Author(s) / Year / Title / Book/Journal / Vol.(Issue) / Pages**

Barbara Senior- 1998/ An empirically-based assessment of Belbin's team roles/ Human Resource Management Journal/ Volume 8 (Number 3)/ 7 including front page

2. **What is the purpose (context) of the writing?**

Investigating: the factor structure of the 9 role version of the BTRSPI, the possibility that some team roles are so different from others that they are unlikely to co-exist as natural team-roles within one person and if some team roles are scarcer than others.

3. **What is the main question that the writer is raising?**

How far Belbin's measure of team roles can continue to be regarded as a helpful tool in team management?

4. **What information does the writer rely on?**

The framework of Meredith Belbin.

5. **What are the inferences that the writer draws?**

The writer uses a case study to doubt the reliability of BTRSPI as a measure of team roles.

6. **What are the concepts and ideas that are fundamental to the argument?**

Swailes & Senior and Broucek & Randell

7. **What are the writer's main assumptions?**

BTRSPI will continue to be used but the results gained should be modified. The author debates whether 9 team roles actually exist, and argues that there are 7 team roles. It is pointless to differentiate between the roles of an implementer and a completer finisher as it is impossible to tell them apart in practice. In terms of their contributions to the team, both team roles can be interchanged. Natural resource investigators can adapt to other roles easily such as shaper and plant. A strong shaper role needs to be balanced by a strong team worker role. Some team roles are less common and should be cherished by managers: Plant and Monitor-

evaluator. Lastly, team members not interested in doing a task themselves are rare co-ordinators and are vital to keeping the team together.

8. What empirical method does the writer use if applicable?

Belbin's team role self perception inventory.

9. What are the implications or consequences of the writer's inferences or conclusions?

Managers should realise that BTRSPI can be modified to help produce a more effective team. Some roles can be interchanged, while others are more natural, and should not be overlooked.

10. Additional Comment?

Initially the case study concluded by saying they were 6 roles. However with only 46 respondents more research needs to be done.

Source 2:

1. Author(s) / Year / Title / Book/Journal / Vol.(Issue) / Pages

S.G Fisher, T.A.Hunter, and W.D.K. Mackrosson/ 1998/ The Structure of Belbin's Team Roles/ Journal of Occupational and Organisational Psychology/ 71/ 5 including front page.

2. What is the purpose (context) of the writing?

The need to understand secondary team roles since most teams consist of less than 8 members. The authors divide the team roles into 2:task oriented and relationship oriented.

3. What is the main question that the writer is raising?

Can an individual who is task oriented be relationship oriented?

4. What information does the writer rely on?

The framework of Meredith Belbin

5. What are the inferences that the writer draws?

Team roles can be classified into two broad groups: task and relationship. An individual's primary role will most likely be their secondary role relying on the above distinction, as revealed by a study conducted by the authors.

6. What are the concepts and ideas that are fundamental to the argument?

Wiggins and Dulewicz.

7. What are the writer's main assumptions?

There are 2 major groupings underlying the Belbin team model.

The secondary role of a relationship type of person will not be a task role and vice versa.

The rule of thumb simply put states that those whose team roles fall into one of each groups will interact harmoniously and productively. Task oriented team roles will not interact harmoniously or productively and the relationship group will interact harmoniously but not productively.

8. What empirical method does the writer use if applicable?

The framework of Dr Meredith Belbin

9. What are the implications or consequences of the writer's inferences or conclusions?

A manager needs to be aware of what group each individual belongs to. A team member in the relationship group will not function well in a secondary capacity in a task oriented group. Interpersonal behaviour can be understood best by affiliation and dominance.

10. Additional Comment?

Even though an individual can function well in more than one team role, the role performed is still linked to one of the 2 groups.

Source 3:

1. Author(s) / Year / Title / Book/Journal / Vol.(Issue) / Pages

Dr Meredith Belbin/ 1981/ Management Teams: Why they succeed or fail.

2. What is the purpose (context) of the writing?

Explores the various team roles (initially 8) and provides a useful insight into the way teams work using the BTRSPI.

3. What is the main question that the writer is raising?

What makes a successful team?

4. What information does the writer rely on?

Research carried out at Henley Management College over a period of 7 years.

5. What are the inferences that the writer draws?

The writer understands that a management team can combine all qualities necessary for success which one individual alone cannot possess.

6. What are the concepts and ideas that are fundamental to the argument?

Information Technology, Case studies in industry and Experiments at the Management College Henley for 7 years

7. What are the writer's main assumptions?

An individual is not perfect but a group can be. There has to be a balance in the team. Teams that have a balanced mix of team roles outperformed unbalanced teams Members of the team must consider their team roles and not their functional roles. Unsuccessful teams can improve by making appropriate changes.

8. What empirical method does the writer use if applicable?

Belbin team role self perception inventory

9. What are the implications or consequences of the writer's inferences or conclusions?

Although, Belbin states that it is easier to predict a team that will fail than one that will succeed, successful teams can still be constructed using the BTRSPI. It is possible not to fall into any of the various categories listed by Belbin, as was the case for about 30% of people tested. Some roles can be merged and may not be necessary in all teams. Care should be

taken to ensure that one team role is not over represented. Most individuals have primary roles (preferred roles) and secondary roles they could play if there was a need for that role.

10. Additional Comment?

Belbin has received a lot of criticism about his self perception inventory and additional models have been developed. However it is generally accepted that this is a good starting point.

Source 4:

1. Author(s) / Year / Title / Book/Journal / Vol.(Issue) / Pages

Phil Baguley/ 2003/ Teams and Team-working

2. What is the purpose (context) of the writing?

Understanding creative and productive teams.

3. What is the main question that the writer is raising?

How can you get the best results from your team?

4. What information does the writer rely on?

The framework of Meredith Belbin and Margerison-McCann

5. What are the inferences that the writer draws?

The writer understands that it can be challenging to get the best results from those you work with in a team and addresses this, and teach you all you need to know about being in a team.

6. What are the concepts and ideas that are fundamental to the argument?

Information Technology

7. What are the writer's main assumptions?

The team is a tool, a means of achieving something, not an end itself. The team needs time to develop and grow. Getting the right mix people of people in a team is the key to a team's success. A big team isn't required- about 5 to 7 members are enough. An individual needs team members who are able to adjust their team role to complement the rest of the team. A

team charter is crucial for the productivity of the team. Team work depends on how many stages in the team development sequence are completed. Problem solving is continual.

8. What empirical method does the writer use if applicable?

The framework of Meredith Belbin and A.H. Maslow

9. What are the implications or consequences of the writer's inferences or conclusions?

Being a good member of a real team will help enhance career prospects. However working in a real team isn't an easy option. It takes a lot of effort and commitment to get it right.

10. Additional Comment?

None

Source 5:

1. Author(s) / Year / Title / Book/Journal / Vol.(Issue) / Pages

John Adair/ 1986/ Effective Teambuilding: How to make a winning team/ Pages 183-184

2. What is the purpose (context) of the writing?

Understanding how to build, choose, maintain and lead teams at work

3. What is the main question that the writer is raising?

Does Belbin's model lead to individuals being stereotyped?

4. What information does the writer rely on?

The framework of Kurt Lewin and Belbin.

5. What are the inferences that the writer draws?

The writer understands that it is hard to build an effective team, and uses examples and case studies that are designed to improve team performance.

6. What are the concepts and ideas that are fundamental to the argument?

Examples, case studies and Information Technology.

7. What are the writer's main assumptions?

Listing roles does not adequately describe behaviour and can lead to the individuals being stereotyped or confined to a particular role. The more times an individual performs a role in one capacity, the more attached that individual is to that role. The individual feels threatened and unhappy whenever another individual fills that particular role.

8. What empirical method does the writer use if applicable?

Belbin's team role self perception inventory

9. What are the implications or consequences of the writer's inferences or conclusions?

There are times the individual will have to move away from a particular role and this can cause friction in the team. The performance of a team depends largely on the individual member producing the goods according to their role and with the interests of the team in the forefront of their minds. Everyone has a specialist role but work together as a team. A team effort is more accepted than an individual effort. Care should be taken to ensure that one member is not promoted above others, as this can lead to resentment. Praise for one member of the team should be praise for the whole team.

10. Additional Comment?

None

Source 6:

1. Author(s) / Year / Title / Book/Journal / Vol.(Issue) / Pages

Aitor Aritzeta, Stephen Swailes and Barbara Senior/ 2007/ Belbin's Team Role Model: Development, Validity and Applications for Team Building/ Journal of Management Studies/ 44 (1)/ 20 including front page.

2. What is the purpose (context) of the writing?

To assess the validity of Belbin's team model and provide fresh insights into aspects of team-working and suggest new research agendas.

3. What is the main question that the writer is raising?

Is the Belbin model supported by accessible evidence?

4. What information does the writer rely on?

BTRSPI and 43 Empirical studies.

5. What are the inferences that the writer draws?

The authors understand the crucial importance of effective team-working. The relationship between team roles and other constructs can be applied to understand the dynamics of a team better. The way an individual interacts with the other members of the team can be associated with power and some other factors.

6. What are the concepts and ideas that are fundamental to the argument?

Information Technology.

7. What are the writer's main assumptions?

The performance of a team cannot be assessed using Belbin's team model only.

8. What empirical method does the writer use if applicable?

Team role self perception inventory [TRSPI-8R AND TRSPI-9R], Observer Assessment sheet, Cattell's 16 Personality Factor Questionnaire [16PF] and Occupational Personality Questionnaire.

9. What are the implications or consequences of the writer's inferences or conclusions?

Socio technical considerations need to balance the psychological approach which is currently used. More research needs to be done. Individuals interact with other team members based on a number of factors that involve cognitive style and power and control. The dynamics of the team roles, the task and the environment must all be taken into consideration.

10. Additional Comment?

None.

Source 7

1. **Author(s) / Year / Title / Book/Journal / Vol.(Issue) / Pages**

Tudor Rickards and Susan Moger/ 2000/ Creative Leadership Processes in Project Team Development: An Alternative To Tuckman's Stage Model/ British Journal of Management/ 11/ 10 including front page.

2. **What is the purpose (context) of the writing?**

Replaces the Tuckman and Jensen model with 2 barriers that still need to be examined. Barriers can be breached through leadership interventions of a creative kind.

3. **What is the main question that the writer is raising?**

Can creative leadership and team performance be structural barriers?

4. **What information does the writer rely on?**

The Tuckman-Jensen Framework

5. **What are the inferences that the writer draws?**

A project team can boost its performance through a creative leadership style

6. **What are the concepts and ideas that are fundamental to the argument?**

Creative leadership can break barriers.

7. **What are the writer's main assumptions?**

There is a weak barrier to success that teams can break and a stronger one where only the determined succeed.

8. **What empirical method does the writer use if applicable?**

The Tuckman-Jensen Framework

9. **What are the implications or consequences of the writer's inferences or conclusions?**

More examination has to be carried out into the creative leadership model. The dynamics of project teams conceal important unresolved issues for further research.

10. Additional Comment?

None