# How personality influences virtual teamwork

A research study from
The Myers-Briggs Company

# Contents

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# Executive summary

There are many different types of teams. Traditional teams were co-located, all members working in the same office or other location. Virtual teams are made up of remote workers who are not co-located but who do have a common purpose, interdependent team goals, and work for which they are mutually accountable. In practice, many teams incorporate a blend of virtual and co-located team working practices in a combined team.

The purpose of this research was to gather information about personality and perceptions of working in virtual, co-located, and combined teams. The FIRO® model was used to measure personality. Respondents were also invited to share their MBTI® best-fit type if they knew it (Myers-Briggs Type Indicator®).

There were no differences between the age or gender of people who worked in virtual teams compared to those who worked in combined or co-located teams.

Five team scales emerged from the respondents' answers to the survey data: Clarity; Emotional Intelligence; Effectiveness; Stretch; and Culture.

1. **Clarity**
   The alignment and the understanding individuals have regarding the vision, plans, and goals of the organization and the team. Individuals hold each other to account and spend time developing intra-team relationships.

2. **Emotional Intelligence**
   The degree of openness, intimacy, and awareness, and social, emotional and personal support, given and received.

3. **Effectiveness**
   Work is completed on time and within budget. When conflict arises, it is resolved. Team members trust each other.

4. **Stretch**
   Job roles stretch individuals, and personal development is available. There are opportunities to experiment, participate, and voice opinions.

5. **Culture**
   The degrees of cultural awareness, respect, and appreciation.

The Emotional Intelligence scale was particularly related to the FIRO need areas of Involvement and Connection.

Differences in responses were noted between managers and non-managers on the team scales. Managers reported higher scores on the Clarity, Emotional Intelligence, and Effectiveness scales.

Respondents with preferences for Extraversion and Feeling reported higher scores on the Emotional Intelligence scale. Respondents with preferences for Introversion reported higher scores on the Effectiveness scale.

**Team effectiveness and challenges**

Respondents were invited to share their views on what made an effective team using open-ended questions. Content analysis was used to analyze the responses. From this, nine key characteristics associated with teams emerged.

1. Alignment and cohesion
2. Communication
3. Co-operation, collaboration, and negotiation
4. Trust
5. Commitment: Accountability, responsibility, flexibility
6. Teamwork
7. Honesty and integrity
8. Cognitive capability
9. Emotional Intelligence

When asked about the challenges associated with working in a team, content analysis was used to analyze the responses. Eleven themes emerged from the analysis.

1. Remote working, colleagues not being physically present, time zone differences, silos developing because ideas are less often bounced around
2. Unmanageable workload
3. External pressures, managing deadlines, pace of change, organizational growth
4. Poor management
5. Lack of accountability and performance management, micromanagement, ensuring everyone is treated fairly, limited trust in management
6. Communication
7. Being unable to reach colleagues, not everyone being heard in virtual or co-located meetings
8. Poor leadership performance
9. No agreed strategic vision (or differences of opinion on what this might be), vague organizational goals, limited trust in leaders
10. Personality differences
11. Task clarity

# Introduction and methodology

## Purpose of the research

There are many different types of teams. Traditional teams were co-located, all members working in the same office or other location. Virtual teams are made up of remote workers who are not co-located but who do have a common purpose and interdependent team goals, for which they are mutually accountable. In practice, many teams incorporate a blend of virtual and co-located team working practices in a combined team.

There are many benefits to virtual teams. They enable experts to collaborate across geographical boundaries (Malhotra et al., 2007), improve cross functional working (Pinjani & Palvia, 2013), and reduce travel costs (Piccoli et al., 2004). Virtual teams can respond quickly to rapidly changing business environments (Bergiel et al., 2008). They can speed up project completion time too as a 24-hour workflow can be generated (Jimenez et al., 2017).

Virtual teams face many challenges, notably building and developing relationships, cohesion, and trust. Virtual teams often rely on written communication and miss out on body language and other non-verbal cues. These challenges are often amplified by team members coming from different cultural backgrounds, bringing with them varying norms and beliefs (He, Paul and Dennis, 2018). The consequences can include mistrust, conflict, and the breakdown of relationships (Kozlowski et al., 2012).

Developing trust in virtual teams relies on technology (Ford, Piccolo & Ford, 2017; Pinjani & Palvia, 2017). Yet the training needs of the virtual team manager are often overlooked (Ford, Piccolo & Ford, 2017).

Lukić and Vračar (2018) discuss the different facets associated with effective team performance and this survey aimed to measure facets related to team performance. These facets included effective recruitment and selection, establishing roles and responsibilities, performance and reward management, positive organizational culture, trust, communication, and team building activities. The Myers Briggs Company High Potential Teams model (2018) builds on this and specifies alignment to organizational goals as an additional tenet of team performance.

This study sought to explore the experiences of working in virtual, co-located and combined teams, and the role of personality in these settings. The FIRO assessment was chosen because it is used regularly in individual and team development settings. It measures how individuals behave towards others (Expressed behaviors), and how those individuals want others to behave towards them (Wanted behaviors). The Expressed and Wanted behaviors are measured on three dimensions: Involvement (the need to belong), Influence (the need for significance), and Connection (the need for close relationships). Respondents were also invited to share their Myers-Briggs Type Indicator® best-fit type if they knew it.

# Data collection

An online survey was conducted using a portal where some respondents had previously completed the FIRO assessment and consented to their details being retained for future research. Additional respondents were contacted through social media sites LinkedIn, Twitter, and Reddit. This group was invited to take the FIRO Business® assessment in addition to the survey questions. In total, 469 respondents completed the survey.
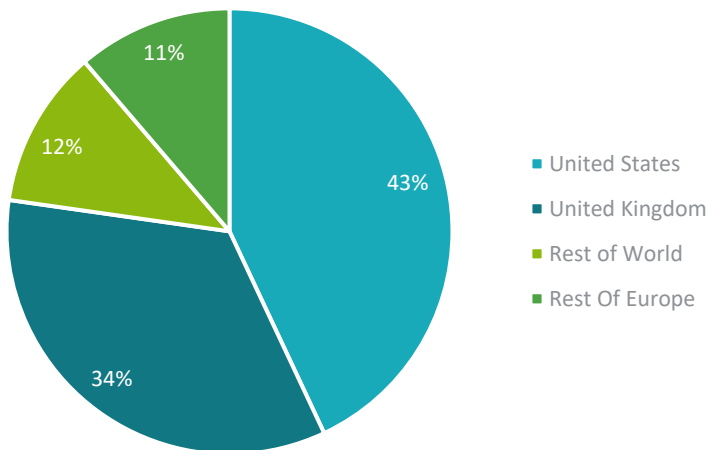
## The sample

### Group demographics

63% of the group were female, and 36% male. 1% preferred to 'self-describe' their gender or did not answer.

Age ranged from 21 to 75 years, with an average age of 45 years and a standard deviation of 11.
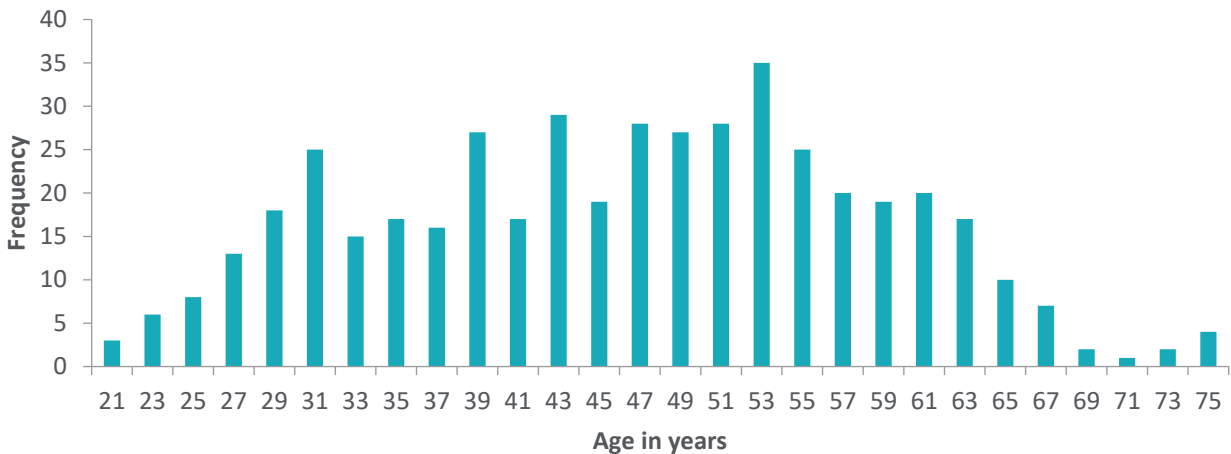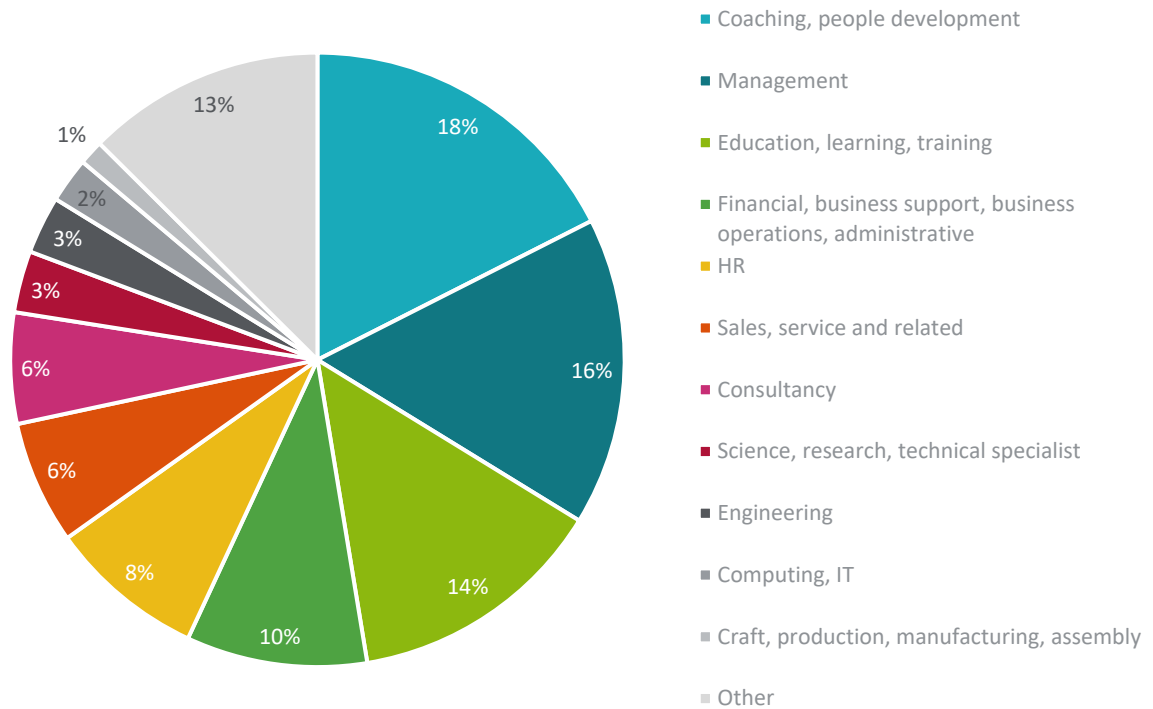


### Place of work

The majority of respondents worked in the UK or US.



- United States
- United Kingdom
- Rest of World
- Rest Of Europe

Most of the group had a people-related role in areas such as coaching, people development, management, education, learning, and training.

85% were employed full-time, 10% were self-employed and 5% were employed part-time.

Job type



- Coaching, people development
- Management
- Education, learning, training
- Financial, business support, business operations, administrative
- HR
- Sales, service and related
- Consultancy
- Science, research, technical specialist
- Engineering
- Computing, IT
- Craft, production, manufacturing, assembly
- Other

## Job level

The majority of respondents were employees, middle managers and senior managers. There were fewer first level managers, executive level managers and owners/CEOs.
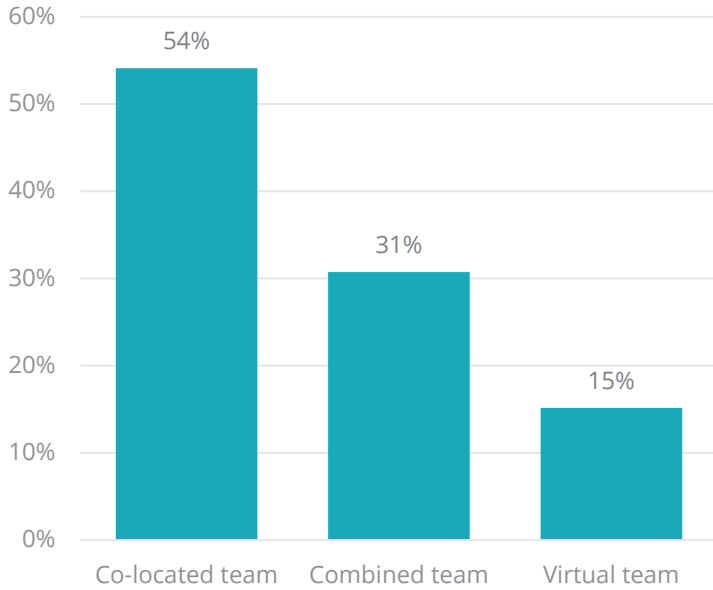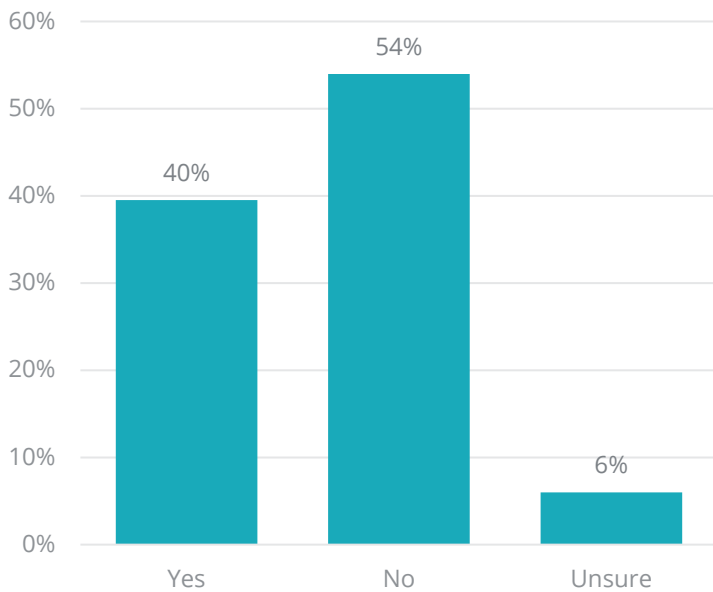
Job level
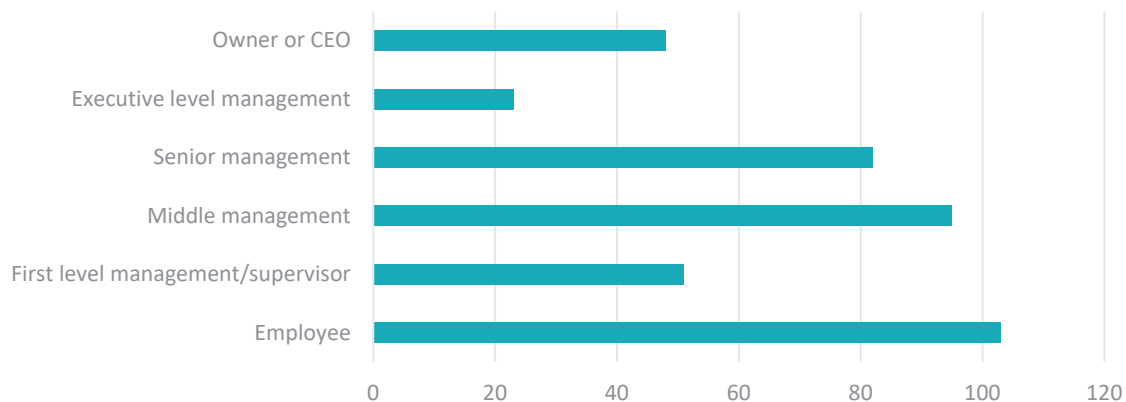
## Team management and team membership

54% of respondents managed a co-located team, 31% a combined team, and 15% a virtual team. 40% of respondents were members of a virtual team, 54% were not, and 6% of respondents were unsure whether they were a member of a virtual team.
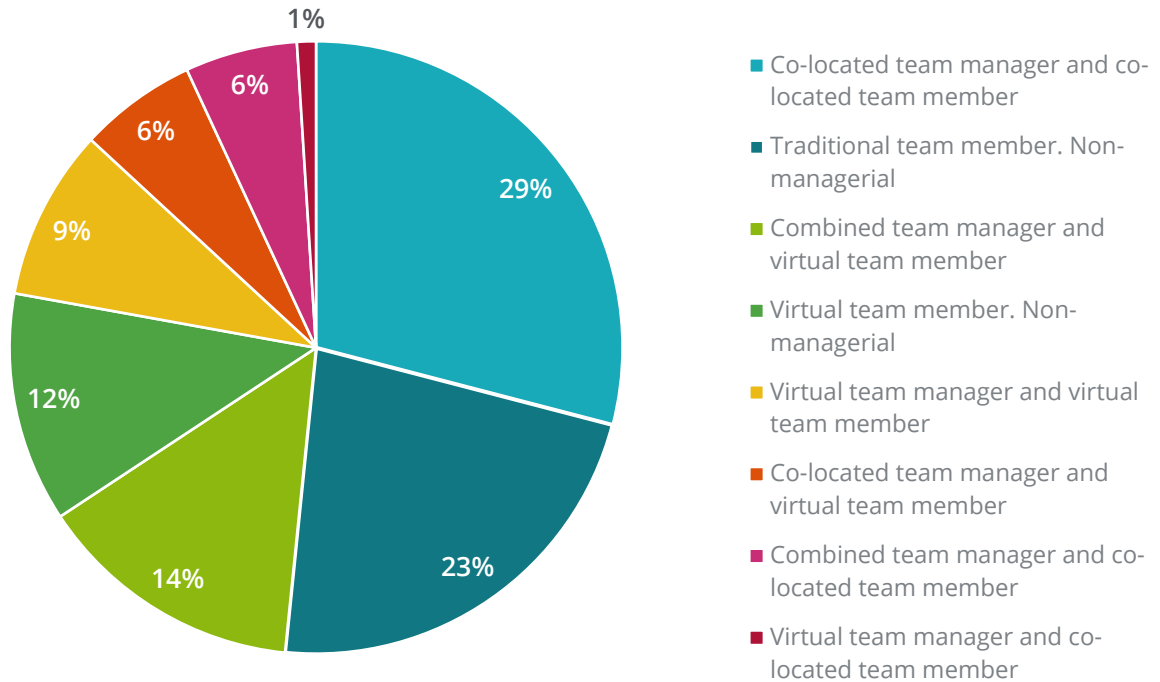
**Do you manage or lead a team?**



**Are you a member of a virtual team?**

## Management and team membership



Pie chart legend:
- Co-located team manager and co-located team member
- Traditional team member. Non-managerial
- Combined team manager and virtual team member
- Virtual team member. Non-managerial
- Virtual team manager and virtual team member
- Co-located team manager and virtual team member
- Combined team manager and co-located team member
- Virtual team manager and co-located team member

29% of respondents managed and were part of a co-located team. 23% were part of a co-located team but were not managers. 14% were managers of a combined team and members of a virtual team. 12% were members of a virtual team and were not managers. 9% were both managers and members of a virtual team. 6% were managers of a co-located team and members of a virtual team. 6% managed a combined team and were members of a co-located team. 1% managed a virtual team and were members of a co-located team.
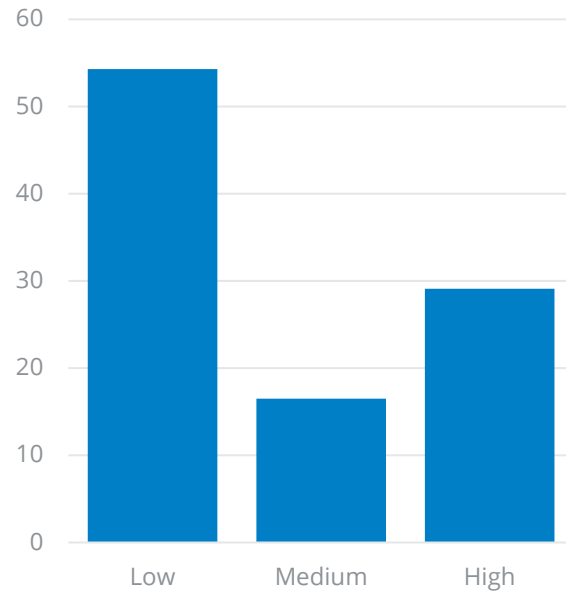
# FIRO® results

The distribution of FIRO results replicated what had previously been found (The Myers Briggs Company, 2016).
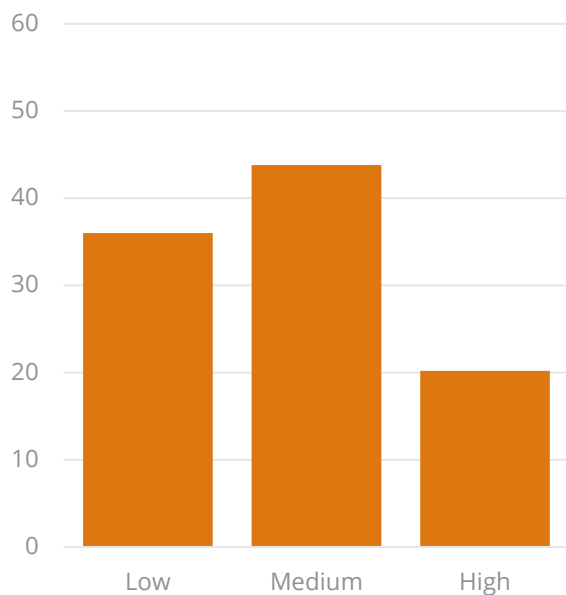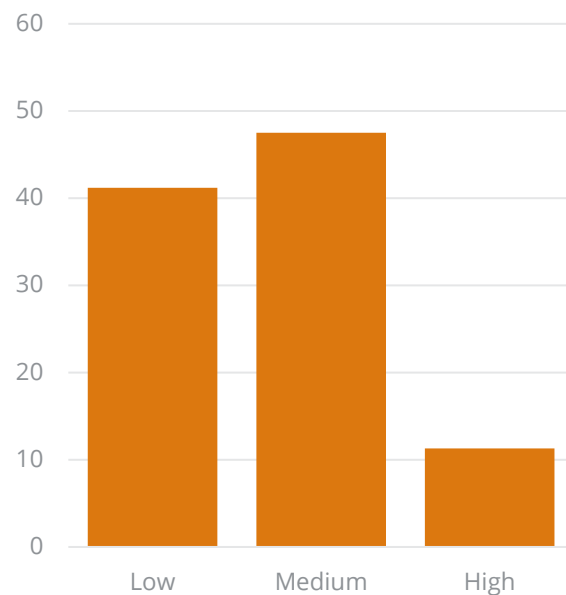
**Expressed Involvement**
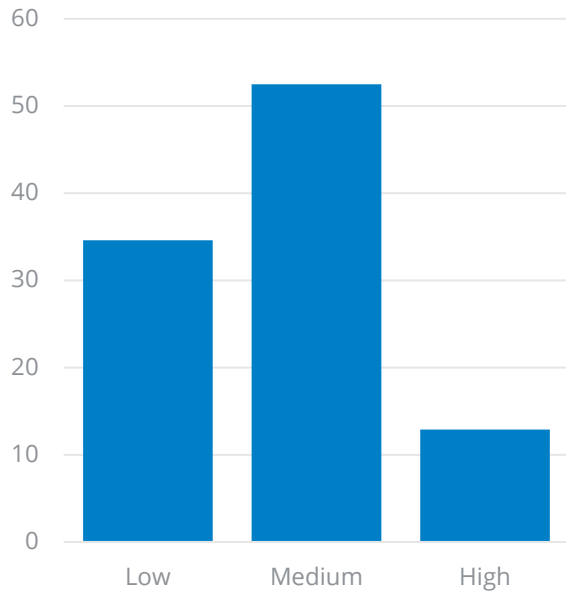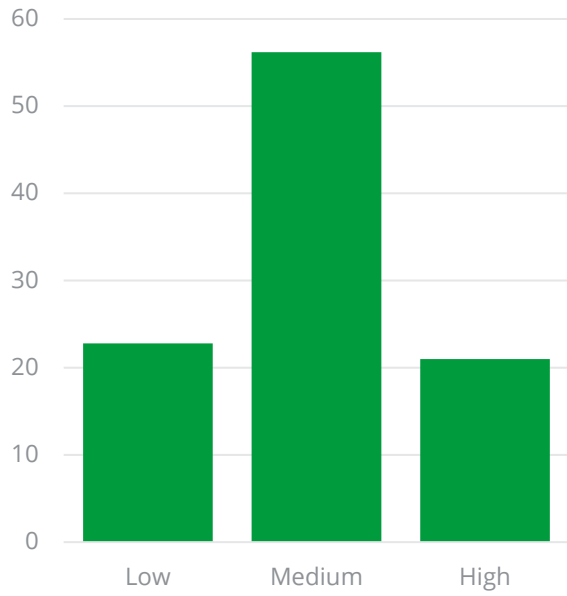


**Wanted Involvement**
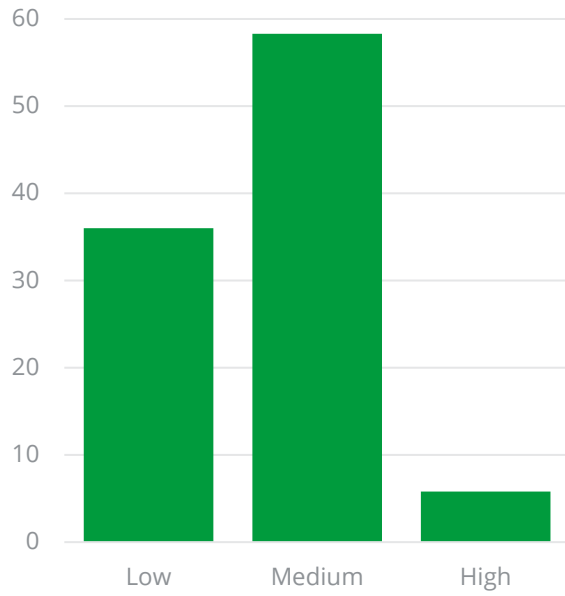


**Expressed Influence**
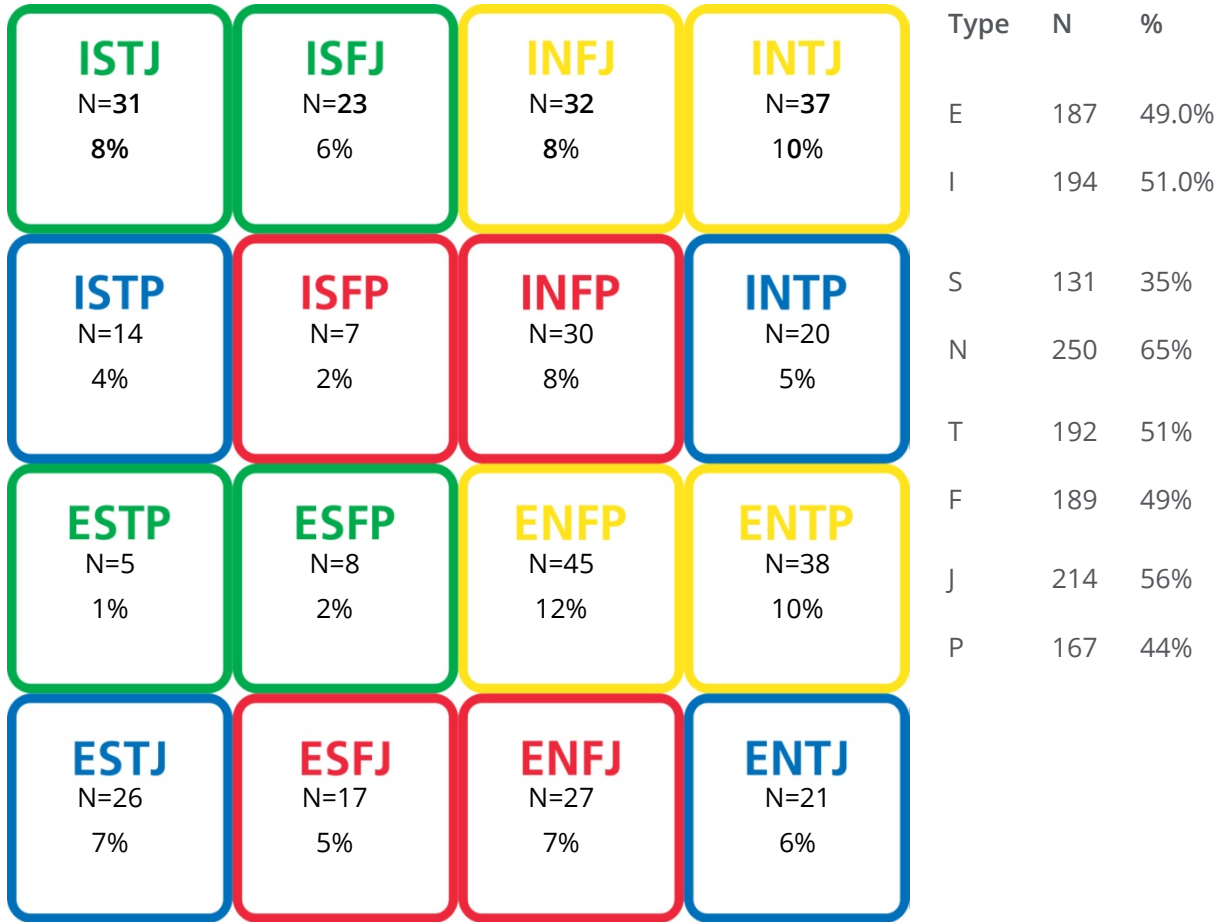


**Wanted Influence**

Expressed Connection



Wanted Connection

Although this research was primarily focused on the FIRO assessment, when asked if respondents knew their four-letter best-fit MBTI type, 381 shared this information.

| ISTJ | ISFJ | INFJ | INTJ |
|---|---|---|---|
| N=**31** | N=**23** | N=**32** | N=**37** |
| **8%** | 6% | **8%** | 10% |

| ISTP | ISFP | INFP | INTP |
|---|---|---|---|
| N=14 | N=7 | N=30 | N=20 |
| 4% | 2% | 8% | 5% |

| ESTP | ESFP | ENFP | ENTP |
|---|---|---|---|
| N=5 | N=8 | N=45 | N=38 |
| 1% | 2% | 12% | 10% |

| ESTJ | ESFJ | ENFJ | ENTJ |
|---|---|---|---|
| N=26 | N=17 | N=27 | N=21 |
| 7% | 5% | 7% | 6% |

| Type | N | % |
|---|---|---|
| E | 187 | 49.0% |
| I | 194 | 51.0% |
| S | 131 | 35% |
| N | 250 | 65% |
| T | 192 | 51% |
| F | 189 | 49% |
| J | 214 | 56% |
| P | 167 | 44% |

# Scale development

Factor analysis (principal components extraction, varimax rotation) was performed on the survey data. The factor analysis suggested that there were five underlying factors around team effectiveness. Five team scales emerged from the respondents' answers to the survey data.

- Clarity
- Emotional Intelligence
- Effectiveness
- Stretch
- Culture

## Rotated component matrix

| | Clarity | Emotional Intelligence | Effectiveness | Stretch | Culture |
|---|---|---|---|---|---|
| Team meetings lead to clear action plans and deliverables for work between meetings | 0.802 | | | | |
| The team ensures that the team's goals, plans and progress are clearly communicated to stakeholders | 0.784 | | | | |
| The team ensures all team members clearly understand the team's goals, plans and progress | 0.764 | | | | |
| The team has a clear and shared vision | 0.762 | | | | |
| Team meetings are focused and efficient | 0.742 | | | | |
| The team celebrates success | 0.588 | | | | |
| Our team is supported by the organization | 0.582 | | | | |
| Team members hold each other accountable for delivery on commitments | 0.506 | | | | |
| The team spends time together developing relationships during meetings | 0.498 | | | | |

| | Clarity | Emotional Intelligence | Effectiveness | Stretch | Culture |
|---|---|---|---|---|---|
| Individual roles and responsibilities are clear | 0.492 | | | | |
| I make a point to share my reactions with my team | | 0.772 | | | |
| I am comfortable expressing my emotions to my team | | 0.754 | | | |
| I make an effort to find out how others in the team are feeling | | 0.754 | | | |
| I notice how members of my team are feeling | | 0.690 | | | |
| My team generally completes its work within budget | | | 0.794 | | |
| My team generally completes its work on time | | | 0.688 | | |
| When disagreement arises, we are quickly able to resolve difficulties | | | 0.593 | | |
| Team members support and trust one another | | | 0.584 | | |
| My role challenges and stretches me | | | | 0.744 | |
| I am able to develop my knowledge and skills through my role | | | | 0.718 | |
| There are opportunities to experiment with alternative approaches | | | | 0.528 | |
| Team members are encouraged to participate and voice their opinions | | | | 0.528 | |
| I understand cultural differences between myself and my colleagues | | | | | 0.784 |
| I adapt how I do things to the culture of my co-workers | | | | | 0.691 |
| I talk to my team to understand nuances in their culture | | | | | 0.613 |
| Cultural differences are respected in my team | | | | | 0.392 |

### Clarity

The alignment and understanding that individuals have for the organization and team's vision, plans, and goals. Individuals hold one another to account and spend time developing intrateam relationships.

### Emotional Intelligence

The degree of openness, intimacy, awareness, social, emotional, and personal support given and received.

### Effectiveness

Work is completed on time and within budget. When conflict arises, it is resolved. Team members trust one another.

### Stretch

Job roles stretch individuals and personal development is available. There are opportunities to experiment, participate, and voice opinions.

### Culture

The degrees of cultural awareness, respect, and appreciation.

## Managers and team factors

### Clarity

It was hypothesized that managers would score higher on the Clarity scale as managers tend to set the direction, make plans, and set goals for their teams. All managers (virtual, combined, and co-located) reported higher scores (Mean = 52.39) compared to non-managers (Mean = 46.42 SD = 8.54); t(332) = 5.58, p<0.001).
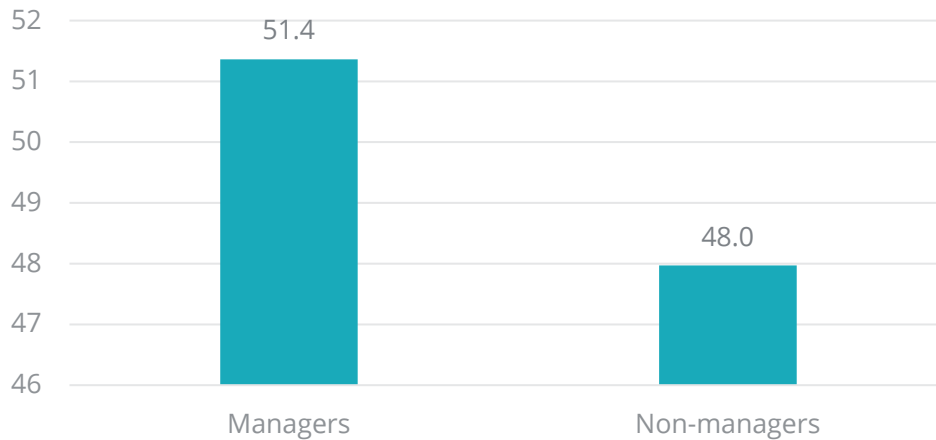
Clarity
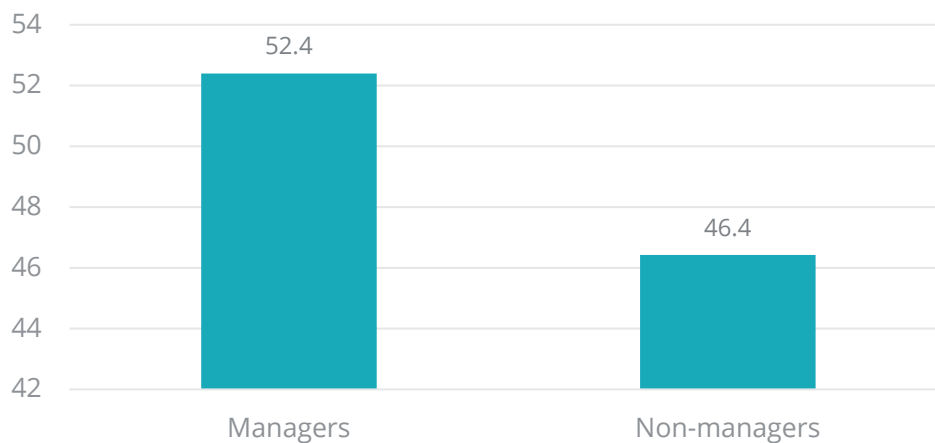
## Emotional Intelligence

All managers scored higher on the Emotional Intelligence scale (Mean = 51.36) compared to non-managers (Mean = 47.97 SD = 9.31); $t(354) = 3.17$, $p < 0.002$). This is likely to be because of the nature of the role, providing emotional and practical support to direct reports.
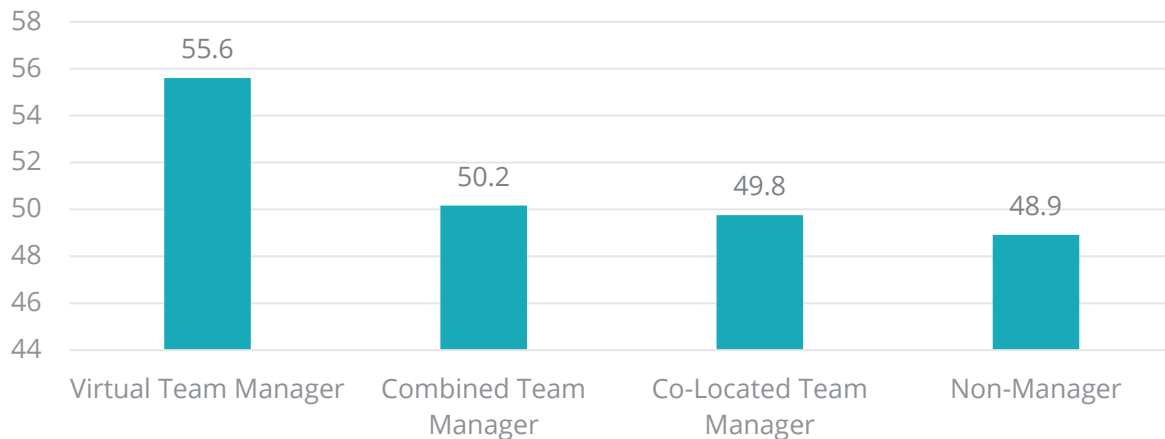
**Emotional Intelligence**



## Effectiveness

Virtual managers reported higher scores on the Effectiveness scale compared to all other types of managers and non-managers ($F(3, 341) = 3.67$, $p < 0.012$). This could be because the remote nature of their role allows them to be more tasked focused.
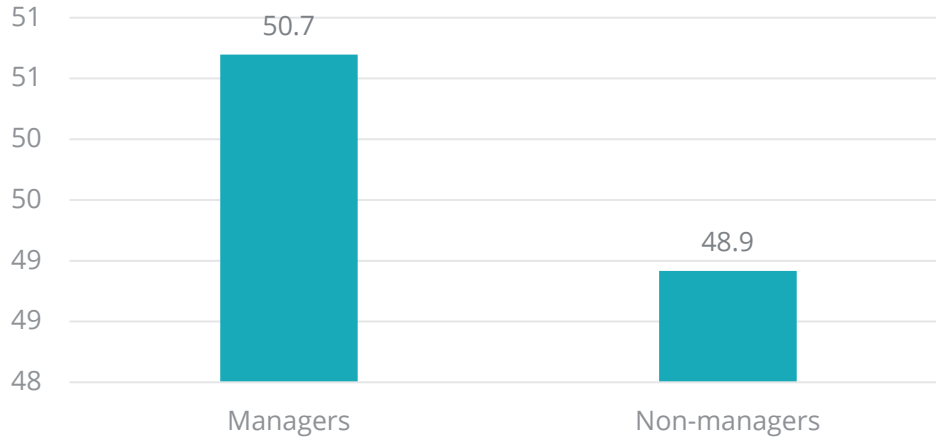
**Effectiveness**

## Stretch

All managers (Mean = 51.95) reported higher scores on the Stretch scale. This might be because managers often report working challenging roles with opportunities to contribute to multiple projects compared to non-managers (Mean = 47.07 SD = 11.82); $t(360) = 4.68$, $p<0.001$.
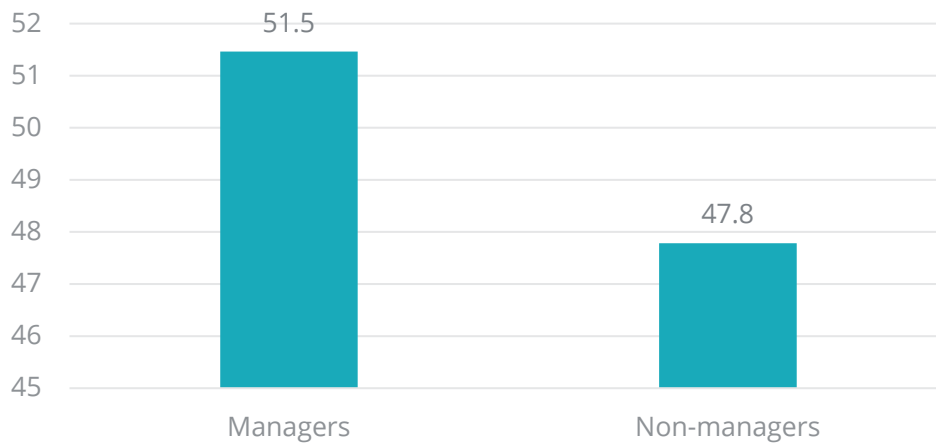
**Stretch**

| | Managers | Non-managers |
|---|---|---|
| Score | 50.7 | 48.9 |

## Culture

All managers (Mean = 51.46) scored higher on the Culture scale. Managers often have to flex their interpersonal style to take account of cultural differences compared to non-managers (Mean = 47.78 SD = 9.47); $t(335) = 3.35$, $p<0.001$.

**Culture**

| | Managers | Non-managers |
|---|---|---|
| Score | 51.5 | 47.8 |

## Team factors and FIRO® results

One-way ANOVA was used to analyze differences in emotional intelligence between managers with different FIRO scores. The Emotional Intelligence scale was particularly related to the need areas Involvement and Connection. Respondents who scored in the High and Medium categories on Expressed Involvement scored higher on Emotional Intelligence ($F(2, 323) = 3.81$, $p<0.023$). This pattern extended to Expressed Connection ($F(2, 323) = 11.366$, $p<0.001$) and Wanted Connection ($F(2, 323) = 9.54$, $p<0.001$).
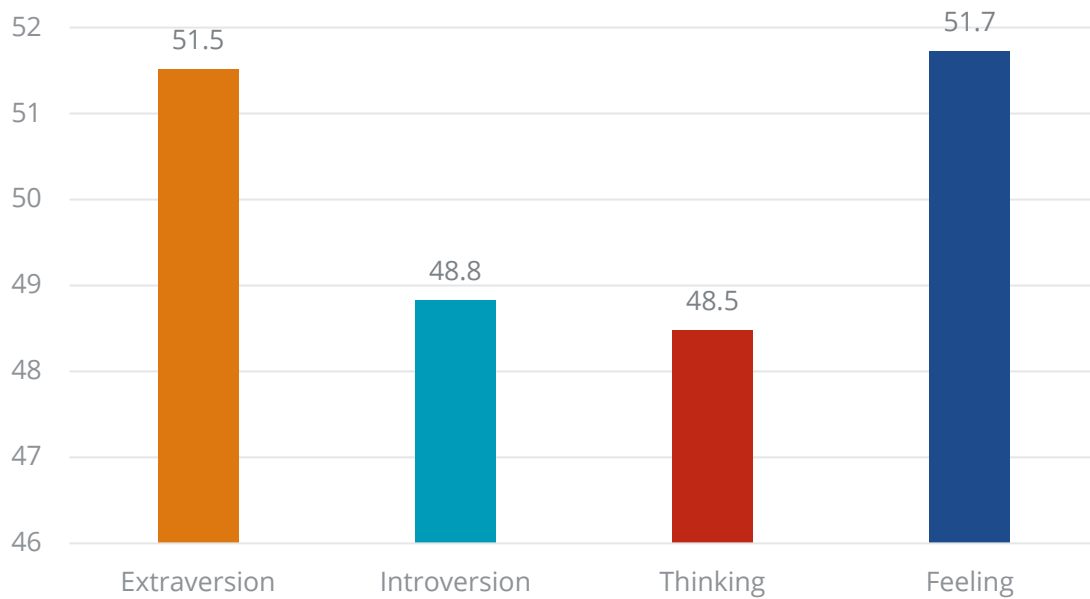
FIRO and Emotional Intelligence
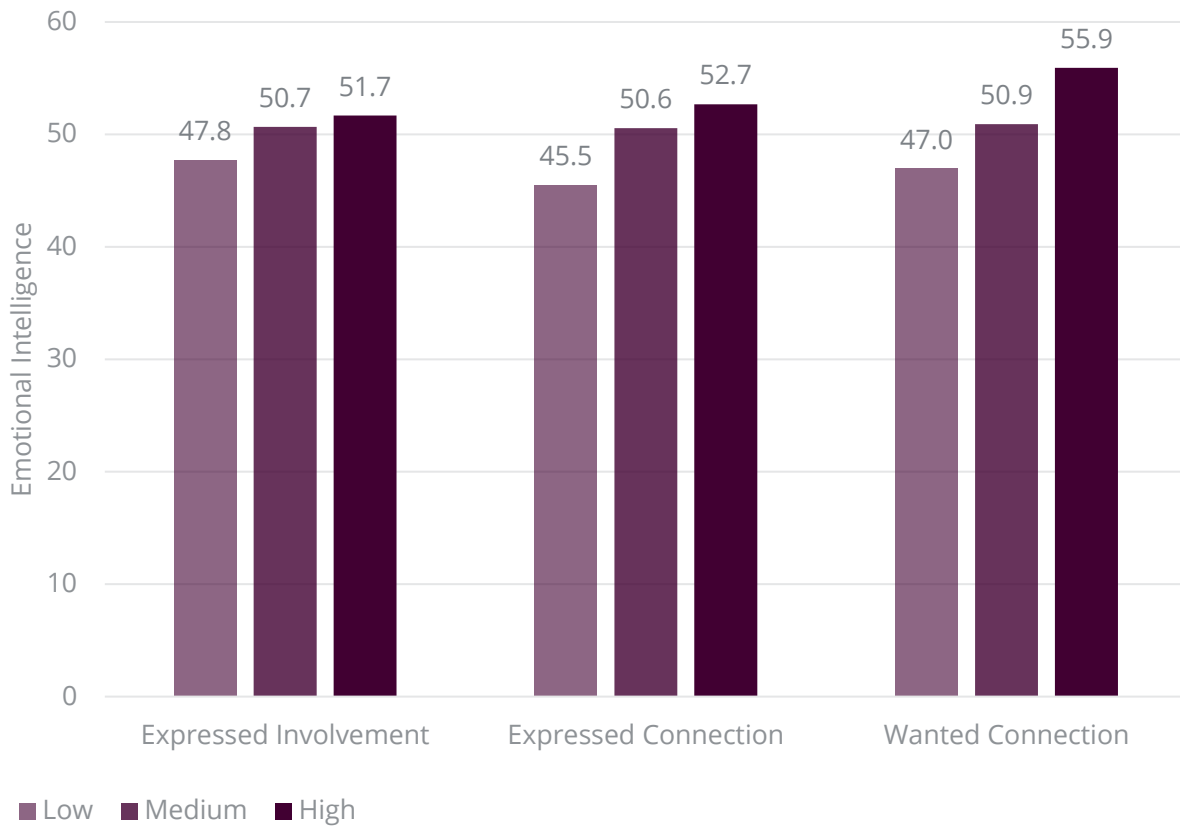


## Age and gender

There were no differences between the age or gender of people who worked in virtual teams compared to those who worked in combined or co-located teams.

# MBTI® results

Independent t-tests showed respondents with preferences for Extraversion scored higher (Mean = 51.51) on Emotional Intelligence compared to those with preferences for Introversion (Mean = 48.83 SD = 10.73); t(288) = 2.22, p<0.027). Whereas those with preferences for Introversion (Mean = 52.10) scored higher on Effectiveness compared to those with preferences for Extraversion (Mean = 48.77 SD = 11.62); t(272) = -2.81, p<0.005).

**Emotional Intelligence**



Those with preferences for Feeling (Mean = 51.72) also scored higher on Emotional Intelligence compared to those with preferences for Thinking (Mean = 48.47 SD = 11.27); t(288) = -2.70, p<0.007).

**Emotional Intelligence**
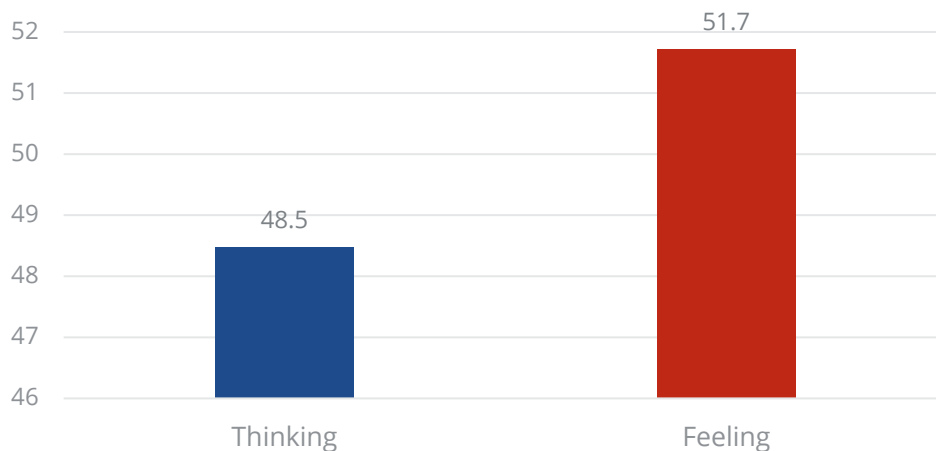
# What makes effective teams?

Content analysis was used to analyze the open text responses. The following characteristics and behaviors emerged from the data.

**What are the three most important characteristics that you need in an effective team?**

| Key characteristics | Example behaviors | Mentions |
| --- | --- | --- |
| Communication | Being transparent in written/spoken communication. | 156 |
| Trust | Trusting yourself and others. | 129 |
| Teamwork | Listening to and understanding one another. Giving and receiving support, recognition, appreciation. | 121 |
| Alignment and cohesion | Working towards having clarity of vision, purpose, and goals. Understanding responsibilities. Taking ownership. | 98 |
| Commitment: Accountability, responsibility, flexibility | Having a work ethic. Being positive, proactive, organized. Having the right attitude to ourselves, others, and people from different cultures. | 78 |
| Emotional Intelligence | Valuing diversity and difference, demonstrating empathy, being open to others and their opinions. | 46 |
| Co-operation, collaboration and negotiation | Being adaptable. | 45 |
| Honesty and integrity | Being truthful. | 32 |
| Cognitive | Thinking critically, dealing with ambiguity, being creative. | 18 |

# Communication and team building

Respondents were asked to answer the question, **"What is the most effective way of aiding communication and building teams?"**

There was consensus that meetings could be used to aid communication and team development with a variety of opinion on the different approaches that could be utilized.

Meetings were recognized as integral. Respondents cited different types of meetings with the consensus being that different meeting types are needed, and that a one-size-fits-all approach does not work. There needs to be dynamism and flexibility, as opposed to rigidity. The output of the content analysis showed the different types of meetings respondents attended.
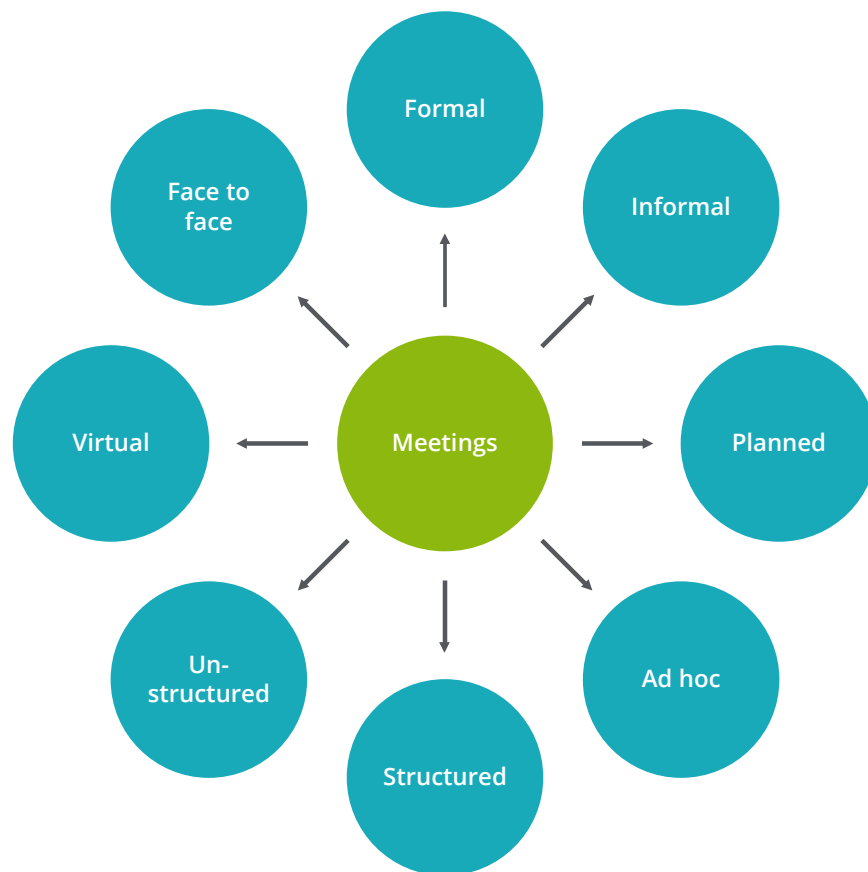


Respondents shared their views on the biggest challenges associated with being in their teams. These responses show that there are a variety of challenges associated with being part of a team. There are many different ways of developing teams, and future research could explore which of these methods of are most effective, and why.

## Team challenges

| Key themes | Example challenges | Mentions |
|---|---|---|
| Remote working | Differences in time zone, difficulties with relationship building, silos developing | 50 |
| Unmanageable workload | External pressures, managing deadlines, pace of change, organizational growth | 48 |
| Poor management | Lack of accountability and performance management, micromanagement, ensuring everyone is treated fairly, limited trust in management | 36 |
| Communication | Being unable to reach colleagues, not everyone being heard in virtual or co-located meetings | 32 |
| Poor leadership performance | No agreed strategic vision (or differences of opinion on what this might be), vague organizational goals, limited trust in leaders | 24 |
| Personality differences | Open vs reserved. Technology focus vs people focus. Planning vs spontaneity. Differing values | 21 |
| Task clarity | Individuals are not given appropriate guidance. Clarity and direction are unclear | 18 |

## Conclusions

This research has presented five scales that emerged from respondents' answers to questions focused on what it is like to work in teams. Differences between the scales and personality were found using the FIRO Business and MBTI questionnaires. Manager respondents reported higher scores on the all the scales. Virtual managers reported higher scores on the Effectiveness scale. Respondents with higher Expressed Involvement, and Expressed and Wanted Connection, scored higher on the emotional intelligence scale. Respondents with preferences for Extraversion and Feeling scored higher on the emotional intelligence scale. Respondents with preferences for Introversion scored higher on the Effectiveness scale.

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