BRITE™

Broad-based Roots Influencing Team Effectiveness

Research and Psychometric Properties

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Introduction

From the beginning, the BRITE team assessment was designed to be a world-class instrument. The information shared here documents the best practices followed to 1) identify the psychological factors that influence team effectiveness, 2) develop the measurement model and corresponding assessment, and 3) determine the reliability and validity of the instrument to determine if it measures as intended. These three steps were accomplished through extensive research conducted over a five-year journey.

Based on our research, we have found that the key to assessing team effectiveness is a realistic picture of the team's energy flow and a deep understanding of what is generating or disrupting the current level of energy. BRITE was designed to measure and explain the extent to which a team synergistically unleashes creative energy and shines—or fails to fully integrate and implodes.

Step 1: Identifying the Factors That Influence Team Effectiveness

Defining Team Effectiveness

BRITE defines team effectiveness as the ability of the team to successfully execute strategic plans, achieve goals, and have a positive impact on the business. This definition is based on evidence from high-quality research investigating the impact of effective teams. When teams are effective, they demonstrate:

- **More innovative strategies and products** (Sarin & McDermott, 2003; Bateman, et al., 2002; Fiore et al., 2014; Wooten, et al., 2015; Hall, et al., 2012; Widmann, Messmann & Mulder, 2016).
- **Improved financial / market performance of the organization** (Colbert, Barrick & Bradley, 2014; Wijeratne, 2016; Salleh, Fareed, Yusoff & Saad, 2016; Carmeli, 2008; Ensley, Pearson & Amason, 2002).
- **High productivity and accelerated speed to market** (Burke, et al., 2006a; Chiocchio, Forgues & Paradis, 2011; Pritchard, Harrell, DiazGranados & Guzman, 2008).
- **Improved job satisfaction, increased engagement, and lower turnover** (Banks, et al., 2014; LePine, et al., 2008; Black, et al., 2018; Salman & Hassan, 2016; Bang & Midelfart, 2010; Schippers, Den Hartog, Koopman & Wienk, 2003).
- **Agile goal achievement and more efficient use of resources** (Beal, Cohen, Burke & McLendon, 2003; Arakal & Mam, 2016; DeShon, et al., 2004; Hirschfeld, et al., 2006).

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- **Increased customer satisfaction** (Haas & Mortensen, 2016: Mathieu, Gilson & Ruddy, 2006).
- **Better performance in times of stress or uncertainty** (Bass, Avolio, Jung & Berson, 2003; Ye & Chen, 2021).

Review of the Research Literature

A large mountain of research on team effectiveness exists, with researchers investigating hundreds of potential factors influencing team effectiveness. However, most studies focused on only one or two factors related to team effectiveness. We began mining that mountain for useful nuggets of knowledge that could be used to build a comprehensive model of team effectiveness.

We focused on actual research studies where there was objective evidence of the impact on team effectiveness. We avoided opinion pieces, reviews of other research, or popular reports on teams in order to utilize empirical findings only. We also paid special attention to meta-analytic studies, where a researcher examines several studies of the same topic simultaneously to evaluate whether the findings will stand together and show a real trend. The results of a meta-analytic study are very robust and considered the highest scientific evidence. We also only included studies that were published since the year 2000, so we could be sure to utilize research that was relevant to current teams and used cutting-edge methods.

Using these criteria, we narrowed our focus from thousands of research reports to around 600 hundred studies conducted with more than 26,000 teams from around the world.

Characteristics of Teams Used in Research

To ensure that our model of team effectiveness would apply to all types of teams, we included studies of teams with different purposes and compositions (e.g., senior leadership teams, project teams, design teams, production teams, service teams, research and Development teams, medical teams, academic teams, sports teams, IT teams, HR teams, consulting teams, local teams, global teams, interdisciplinary/cross-functional teams, and change management teams).

We also included teams from different industries (e.g., banking, manufacturing, communications, hotel, retail, advertising, recreation, sales, finance, construction, government, education, shipping, pharmaceuticals, entertainment, health care, athletics, military, automotive, nonprofit).

The studies we included in our research were conducted not only in the U.S. but in most other regions of the world (e.g., Argentina, Canada, China, Denmark, Germany, Hong Kong, India, Ireland, Jordan, Malaysia, Netherlands, Norway, Philippines, Portugal, Singapore, South Korea, Spain, Sweden, and Taiwan).

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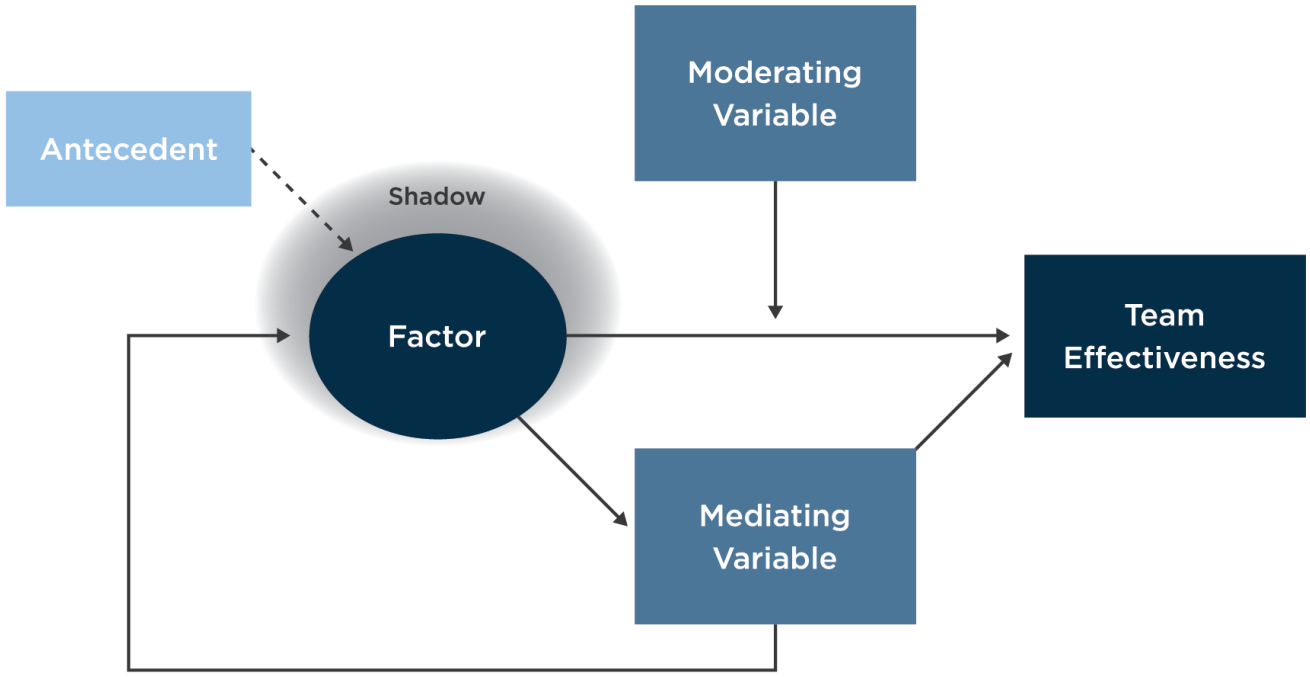
Illustrating Factors and Their Influence on Team Effectiveness

Below we highlight the overarching findings from our research and provide a couple of examples that illustrate our method and results. A more extensive review of all our findings, as well as references to the research studies included, are presented in a white paper titled "Toward a Robust Model of Team Effectiveness," posted on the Leadership Circle website.

To assist the reader in understanding how identified factors influence team effectiveness, including all variables related to a factor that contribute to that influence, we illustrate the factor with a visual diagram that shows the nature of relationships. Figure 1 shows the various types of relationships depicted in the factor diagram and provides a concrete way of representing the underlying psychological construct that exists only in the abstract.

Figure 1: Pathway for a Variable Affecting Team Effectiveness



The straight line from the factor to team effectiveness represents the direct influence of the factor on team effectiveness. In addition, there are also alternative pathways in which the factor may influence team effectiveness. Sometimes other variables moderate the relationship between the factor and team effectiveness, either increasing or decreasing the influence of the factor. Sometimes other variables may have a mediating relationship, in which their presence is necessary to have a substantial impact on team effectiveness.

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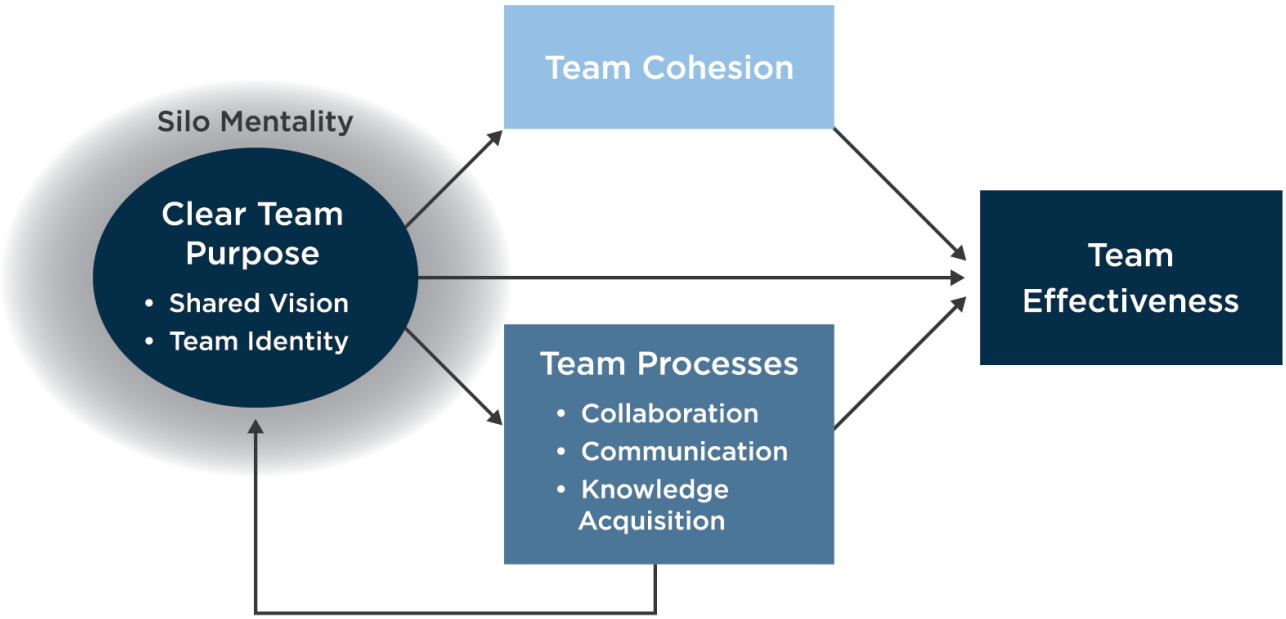
Also notice the gray cloud that surrounds the factor. We call this a *shadow factor* because it counteracts the effects of the main factor on team effectiveness. When present, the shadow factor reduces the impact.

An example of the research findings for one such factor is presented in Figure 2. Numerous research studies have shown that when teams have a clear purpose, including a shared vision and strong team identity, they are much more effective than teams that lack this shared understanding.

Figure 2: Example Diagram for the "Clear Team Purpose" Factor



Several research studies indicate that when a team is more cohesive and engages in active processing of information, the influence of the team's purpose on team effectiveness is magnified. As this example illustrates, there is a complex relationship between factors suggesting that factors are not mutually exclusive but are interdependent. This is akin to energy building across factors to influence outcomes.

Further, some studies show the presence of a shadow factor that disrupts the influence that clear team purpose can have on team effectives. *Silo mentality* plays a disruptive role when team members focus only on work that is relevant to their expertise or individual area of influence rather than taking a broader perspective on teamwork.

Following this process, we identified more than 50 factors and shadow factors, as well as mediating and moderating variables. We then conducted our own studies to determine which of these factors were most important to measure.

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Confirming the Most Influential Factors

Because existing studies examined only a few factors or variables in combination with each other, it was not possible to determine the relative magnitude of influence across various factors. The second part of our research focused on determining the specific factors that had the greatest magnitude of influence on team effectiveness.

To do this, we collected data from Leadership Circle consultants and coaches who frequently work with teams. Specific methods and analyses include:

- We conducted 90-minute interviews with consultants in which we asked them to identify the characteristics of the most and least effective teams with which they had worked. We then conducted a qualitative analysis of responses to determine which factors and shadow factors were present in the descriptions and also which factors most often occurred in combination with one another.
- We surveyed nearly 400 coaches and asked them what information they felt would be most helpful for them to understand in facilitating development work with teams. Again, we correlated that feedback to the factors and shadow factors identified from the research literature.

Based on these two sources of information, we narrowed results down to 32 critical factors influencing team effectiveness. Seventeen factors were observed to be important for creating effective teams—we refer to these as *Energy Generators*. Fifteen factors were present when teams were less effective or dysfunctional—we refer to these as *Energy Disruptors*. The list of all 32 factors is provided in Appendix 1.

Step 2: Developing a Comprehensive Measurement Model and Assessment

The next step was to develop a structural model that depicts the relationship between factors. This is much like putting together a jigsaw puzzle, determining how to arrange factors together to yield the most coherent picture of team effectiveness. Are some factors more closely related to others and so measuring them in conjunction with one another would provide useful information?

To answer this question, we leveraged data from Leadership Circle's Team Effectiveness Assessment (TEA). The TEA is a valid and reliable assessment of top leadership teams. It employs score card indicators and comprehensive interviews. By analyzing the patterns within the findings of the TEA conducted with more than 100 teams in conjunction with findings from the research literature, we were able to identify relationships between the factors and to develop higher-order factors.

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Higher-Order Elements

The results of our research revealed that the generators and disruptors most often combine in five critical ways that impact dynamic interactions on teams. We call these higher-order factors *Elements of Interaction* (or elements for short). The label and brief description of each element includes:

- **Sharing Mindsets:** the underlying beliefs and value systems that each individual member holds concerning the team. Mindsets influence how team members think, feel, and interact with each other and with the rest of the organization.
- **Building the Right Structure:** the way the team is organized, including who is on the team, the roles and responsibilities of its members, and where decision authority resides.
- **Creating Safety and Cohesion:** the team environment is one in which team members feel safe to take personal risks and are confident that others will not embarrass, reject out of hand, or punish someone for speaking up, and where they can trust each other's intentions.
- **Processing Information:** how the team communicates and collaborates, and the usefulness of knowledge that emerges. This also involves the extent to which the team monitors and regulates its process and how it manages conflict.
- **Producing Results:** the cognitive skills and abilities that directly produce outcomes and achieve team goals. These include problem-solving, strategic planning, decision-making, implementation, evaluation, and continual improvement.

Each element comprises six to seven factors, reflecting the relationship between generators and disruptors. From a measurement perspective, we can think of these as scales and subscales. The structure for each element is provided in Appendix 1.

Measuring Latent Variables

A latent variable is something that cannot be directly measured. Unlike our accompanying picture, it is simply not possible to open up someone's head and use a pair of calipers to see how they feel about their team. Because of the psychological nature of the variables, they are not subject to direct measurement.

Instead, we need to find a way to measure something that gives us a sense of that latent variable. The technical term for this is an "indicator." If we can find good (reliable and valid) indicators of the latent variable, then we can measure them instead.

In most psychological research, the time-honored indicators are items on a survey. Also known as perceptive data. Survey items allow us to capture a sense of the latent variable

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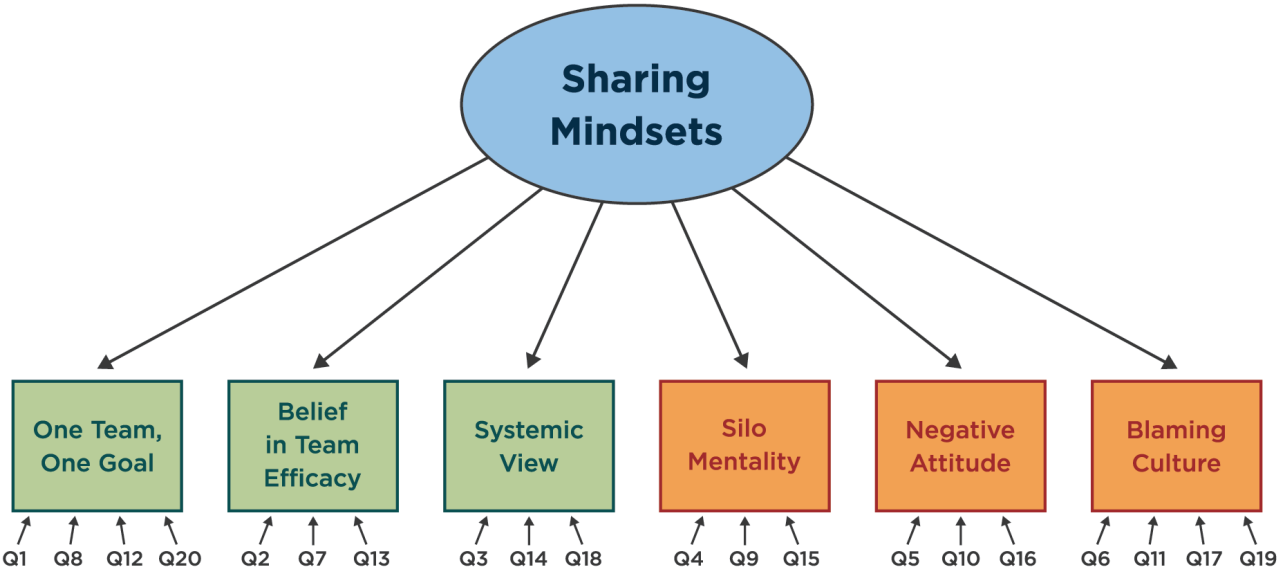
we are interested in—our generators and disruptors.

Remember that survey items are not the latent variables themselves, but instead are indicators. Because of this, it is of vital importance to use multiple items to be sure of capturing the best sense of the latent variable in question. Thus, we used three to five items for each subscale to ensure that we were getting a full and accurate sense of the latent variable. Using multiple items allows us to triangulate across indicators to get the highest-quality measurement.

Figure 3 shows an example of the items used as indicators for each of the generators (green boxes) and disruptors (red boxes) associated with the Sharing Mindsets element. The six subscales are the latent variables that we measure using our indicators—items on the survey. The items were generated based on expert review and following good principles of item construction. The initial item pool included more than 600 items, and this was narrowed to the best-performing items based on item analysis (described in more detail in the next section of this report).

Figure 3: Example of Measuring Latent Variables in BRITE



The items we used to measure the subscales asked team members for their perceptions of what is happening on the team relevant to each area under study. We record the quantitative value associated with each item in a subscale, and then by triangulating the responses, we can paint a reasonable picture of what the subscale looks like. Further, through aggregating the values on each subscale, we are able to measure the higher-level element of Sharing Mindsets.

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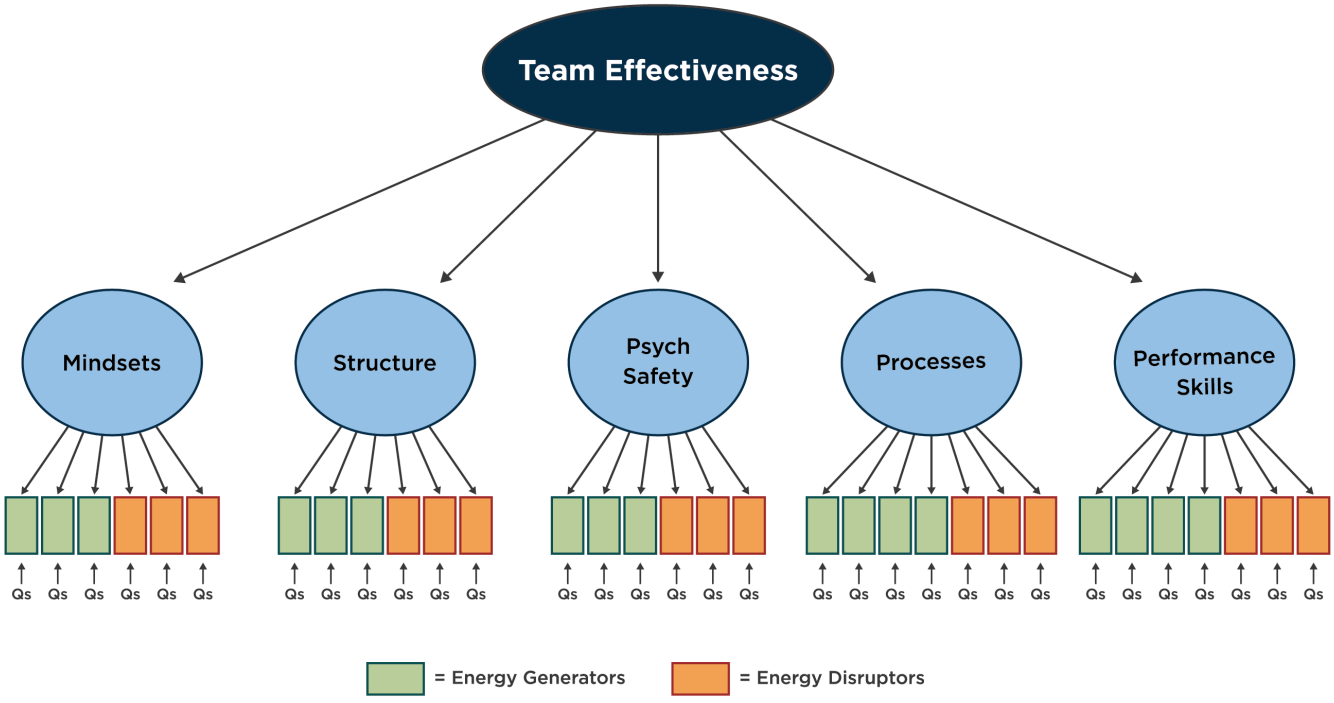
The BRITE Measurement Model

To test the performance of our BRITE assessment requires that we map the linkages between each of the survey items (indicators) with its respective latent variable and each latent variable (subscale) to its higher-order scale (element). Ultimately, this allows us to predict the overall latent variable—team effectiveness. Figure 4 presents the measurement model underlying the BRITE assessment.

Figure 4: The Measurement Model for BRITE



You will note that we have not provided the specific names of the subscales or each of the questions associated with each because of space. However, you can find the names of each subscale and the number of items associated with each in Appendix 3.

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Step 3: Determining Psychometric Properties of BRITE

To ensure that the BRITE assessment reliably and validly measures team effectiveness, we conducted several psychometric tests based on the measurement model. It is important to note that team members respond to BRITE assessment items using a five-point Likert scale going from Strongly Disagree to Strongly Agree.

Item Performance

First, to understand if items (individual survey questions) are performing like they should, we consider the distribution of responses for each item, including the mean, standard deviation, and measures of skewness and kurtosis.

Items with extremely high or low means are undesirable because that would indicate that most of the respondents are answering the item in the same way, and this lack of variance would not help us differentiate between different levels of team performance. Ideally, the distribution of item responses should be similar to a normal distribution (the bell-shaped curve). This is measured in two ways:

- **Skewness** – how evenly dispersed responses are around the mean. In a normal distribution, there are just as many responses above the mean as there are below the mean, demonstrating symmetry in responding. The standard for the skewness statistic is that it falls between 1 and -1.
- **Kurtosis** – how similar various respondents scores are to the mean. In a normal distribution, about 65% of the respondents score close to the mean (within one standard deviation), about 30% score a little further above or below the mean (two standard deviations from the mean), and about 5% of respondents score at a much more extreme distance from the mean (three or more standard deviations above or below the mean). The standard for the kurtosis statistic is that it falls between 3 and -3.

All items on BRITE, with one exception, perform well according to these standards (we are working to modify the outlier based on additional testing). For example, Figure 5 shows one of the items used in the assessment. As you can see, the distribution creates the recognizable bell-shaped curve characteristic of a normal distribution. Although the shape is not perfect, it is well within acceptable tolerances of skewness and kurtosis as reported out in the table beside the graph. The statistics for all items used with BRITE can be found in the table included in Appendix 2.

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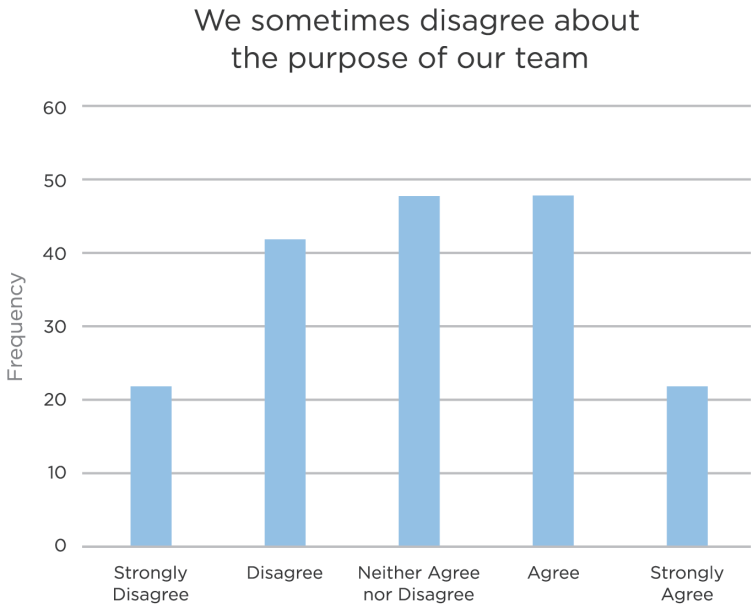
Figure 5: Example of Individual Item Performance



Statistic	Item
N	171
Mean	2.91
Standard Deviation	1.14
Skewness	-.09
Kurtosis	-.91

Reliability and Validity of Subscales

Next, it is important to test whether BRITE's strong items accurately measure what we want them to measure, and if they do so consistently. There were two types of tests we conducted to determine the validity and reliability of the BRITE subscales.

Principal Components Analysis

First, we conducted Principal Component Analysis (PCA). PCA looks for patterns and trends within items to determine the fewest components that will explain the most variance. Another way of saying this, it establishes whether the items hang together to form a single indicator of performance or are composed of multiple components that provides less unity in describing the subscale. For items to measure the subscale in the way that we predict, we would expect that the PCA will yield only one component per subscale. The analyses of all BRITE subscales showed this property.

Internal Consistency – Cronbach's Alpha

Second, we determined the extent to which the subscales demonstrated reliability by conducting a test of internal consistency. The most common way to measure internal consistency is by using a statistic known as Cronbach's Alpha, which calculates the pairwise correlations between items on a subscale and the rest of the items on the survey. The value for Cronbach's Alpha can range between negative infinity and one. Most researchers accept any value above .40 as indicating good reliability for subscales.

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The results from this analysis reveal that all subscales used with BRITE have good internal consistency. The specific Cronbach's Alpha statistic, as well as the number of components for each subscale, are provided in Appendix 3.

Concurrent Validity of BRITE

Finally, we measured the concurrent validity of BRITE. Concurrent validity answers the question, "Can BRITE accurately predict team effectiveness?" This test was conducted by comparing team members' responses to BRITE and another measure of team effectiveness. The second measure, referred to as the *Team Effectiveness Scale* (TES), is a criterion measure comprising seven items that ask team members to rate the overall effectiveness of their team (e.g., *Relative to other teams you have worked with or observed, how effective is this team?*).

There are two statistics that reveal the concurrent validity of a measure:

- **Correlation Coefficient (r)** – measures the extent to which responses on one instrument correspond to responses on the criterion instrument. We would expect that the higher the Overall Effectiveness Score on BRITE, the higher the TES score. The r statistic varies between 0 and 1. The more similar the responses on the two measures, the closer to 1 the observed r statistic, and the more confident we can be that BRITE measures what it purports to measure. Most researchers accept any r value above .3 to indicate a moderate relationship, above .5 to indicate a strong relationship, and above .7 to indicate a very strong relationship.
- **Coefficient of Determination (r^2)** – measures how well the measurement model predicts the outcome criteria. It is a measure of goodness of fit and accounts for the proportion of variance that is explained by the model. The more variance that can be accounted for by the BRITE Overall Team Effectiveness score, the more confident we can be that the measurement model accurately predicts team effectiveness. The r^2 statistic also varies between 0 and 1, but the standards are slightly different. Most researchers suggest that a measure should account for at least 25% of the variance in the outcome measure (r^2=.25).

When we conducted the analysis of BRITE performance (as measured by the Overall Leadership Effectiveness score) compared with the TES outcome, we found the following statistics:

- r = .76
- r^2 = .58

These findings suggest that BRITE is an effective measure, accurately predicting team effectiveness. BRITE also accounts for a substantial amount of the variance in the criteria used to measure team effectiveness.

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Further, because we were pulling a sample of teams from the population of all teams, we also wanted to ensure that the values could be generalized to all teams. We used an inferential statistic, the F-statistic, to determine the statistical significance of our findings. The F-statistic is reported out as a probability statement indicating the likelihood of the findings occurring by chance alone and less likely to be repeated with other teams. Most researchers accept a probability of .05 ($p<.05$), indicating a less than one in 20 chance that the findings will not be applicable to the larger population, as adequate to draw general conclusions. In our test, we found that the correlations had a probability of .001 ($p<.001$) indicating a one in 1,000 chance that the findings would not be applicable to other teams.

Taken together, the findings suggest that BRITE is robust and that predictive results are likely to be repeated with any team using the measure.

We also conducted similar analyses for each of the elements within BRITE, and the resulting correlations and significance are provided in Table 1. The values in the table indicate good to excellent concurrent validity. Team members who indicate that their team effectiveness is high are also scoring higher on the individual elements designed to predict overall team effectiveness. Further, the amount of variance accounted for by each element is high and suggests that our measurement model accurately measures what it set out to measure.

Table 1: Concurrent Validity of BRITE Elements

BRITE Element	N	Correlation Coefficient (r)	Coefficient of Determination (r^2)	Significance (F test)
Sharing Mindsets	171	.65	.42	p<.01
Building the Right Structure	171	.71	.50	p<.01
Safety and Cohesion	171	.82	.67	p<.01
Processing Information	171	.72	.52	p<.01
Producing Results	171	.58	.34	p<.01

We are continuing to test the model. As we collect more BRITE data, we will be able to run more sophisticated analyses, including confirmatory factor analysis. This analysis will allow us to show the exact mathematical properties of our overall model, the factor loadings for each subscale, and the inter-correlations between each subscale and element. Based on the findings to date, we believe that the fit of our data to the measurement model will be strong and serve to further validate the usefulness of BRITE in assessing team effectiveness.

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Appendices

Appendix 1: BRITE Model

Elements (higher-order scales)	Energy Generator Subscales	Energy Disruptor Subscales
Sharing Mindsets	• One Team, One Goal • Belief in Team Efficacy • Systemic View	• Silo Mentality • Negative Attitude • Blaming Culture
Building the Right Structure	• Effective Team Composition • Clear Roles and Responsibilities • Transformational Team Leadership	• Team Size Too Big • Unreliable Team Members • Transactional Team Leadership
Creating Safety and Cohesion	• Welcoming Participation Structure • Interconnectedness • Team Emotional Intelligence	• Distrust • Political / Pleasing Culture • Destructive Dynamics
Processing Information	• Open Information Exchange • Efficient Meetings • Collective Knowledge Generation • Active Monitoring and Regulation	• Impulsive Responding and Polarization • Unbalanced Participation • Unmanaged Conflict
Producing Results	• Collaborative Problem Solving • Strategic Planning and Decision Making • Execution and Collective Accountability • Focus on Continuous Improvement	• Groupthink • Reactive Responding • Capitulation

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Appendix 2: Item Performance

Item	Mean	Standard Deviation	Skewness	Kurtosis	Standards Met?
Q1	3.66	0.96	-0.60	-0.24	Yes
Q2	2.57	1.06	0.27	-0.94	Yes
Q3	3.77	0.96	-0.82	0.27	Yes
Q4	2.89	1.17	-0.01	-1.11	Yes
Q5	2.32	1.02	0.74	0.14	Yes
Q6	2.81	1.17	0.34	-0.97	Yes
Q7	3.89	0.85	-0.63	-0.02	Yes
Q8	3.49	1.06	-0.49	-0.47	Yes
Q9	2.62	1.14	0.37	-0.90	Yes
Q10	2.76	0.99	0.43	-0.48	Yes
Q11	2.51	1.08	0.46	-0.72	Yes
Q12	2.60	1.05	0.13	-1.02	Yes
Q13	1.59	0.80	1.82	4.24	No*
Q14	3.20	0.98	-0.12	-0.88	Yes
Q15	2.71	1.12	0.20	-1.09	Yes
Q16	2.58	1.17	0.35	-0.89	Yes
Q17	2.48	1.12	0.48	-0.62	Yes
Q18	3.12	1.16	-0.32	-1.06	Yes
Q19	2.57	1.12	0.61	-0.40	Yes
Q20	3.15	1.03	-0.12	-0.84	Yes
Q21	3.89	0.89	-0.77	0.24	Yes
Q22	3.59	1.05	-0.61	-0.43	Yes
Q23	2.45	1.12	0.61	-0.41	Yes
Q24	2.09	0.96	1.05	1.05	Yes
Q25	2.33	1.11	0.68	-0.48	Yes
Q26	3.61	0.94	-0.62	-0.19	Yes
Q27	2.16	0.84	0.74	0.41	Yes
Q28	3.45	1.06	-0.48	-0.67	Yes
Q29	3.78	0.95	-0.96	0.78	Yes

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Item	Mean	Standard Deviation	Skewness	Kurtosis	Standards Met?
Q30	2.11	0.90	0.91	0.78	Yes
Q31	2.97	1.09	-0.14	-0.96	Yes
Q32	2.66	1.07	0.35	-0.57	Yes
Q33	3.55	0.99	-0.57	-0.20	Yes
Q34	2.91	0.96	0.24	-0.96	Yes
Q35	2.40	1.09	0.63	-0.31	Yes
Q36	2.41	1.02	0.46	-0.64	Yes
Q37	2.16	1.06	0.85	0.00	Yes
Q38	2.37	0.98	0.69	0.08	Yes
Q39	3.90	0.90	-1.18	1.83	Yes
Q40	2.25	1.01	0.52	-0.58	Yes
Q41	3.35	0.93	-0.47	-0.50	Yes
Q42	3.91	0.96	-0.99	0.77	Yes
Q43	2.83	1.02	0.32	-0.77	Yes
Q44	2.96	1.13	-0.15	-1.05	Yes
Q45	3.59	0.89	-0.87	0.71	Yes
Q46	2.26	1.07	0.76	-0.24	Yes
Q47	3.49	0.95	-0.54	-0.37	Yes
Q48	2.98	1.11	-0.14	-1.08	Yes
Q49	2.41	1.12	0.44	-0.59	Yes
Q50	2.63	1.14	0.28	-0.88	Yes
Q51	3.38	1.03	-0.43	-0.41	Yes
Q52	3.80	0.84	-0.75	0.85	Yes
Q53	2.43	0.95	0.64	-0.16	Yes
Q54	2.19	1.01	0.79	0.08	Yes
Q55	2.82	1.01	0.15	-0.81	Yes
Q56	2.27	0.98	0.66	-0.17	Yes
Q57	3.92	0.72	-0.68	1.25	Yes
Q58	3.30	1.05	-0.40	-0.42	Yes
Q59	2.68	1.05	0.43	-0.58	Yes

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Item	Mean	Standard Deviation	Skewness	Kurtosis	Standards Met?
Q60	2.37	1.03	0.46	-0.66	Yes
Q61	2.74	1.09	0.12	-1.18	Yes
Q62	2.74	1.11	0.52	-0.62	Yes
Q63	2.99	1.02	-0.17	-1.04	Yes
Q64	3.52	0.96	-0.59	-0.50	Yes
Q65	2.55	0.87	0.55	-0.37	Yes
Q66	2.22	1.01	0.72	-0.23	Yes
Q67	3.47	0.90	-0.69	0.20	Yes
Q68	2.44	1.04	0.54	-0.44	Yes
Q69	3.42	0.93	-0.53	-0.46	Yes
Q70	2.80	0.94	0.22	-0.64	Yes
Q71	3.62	0.78	-0.94	1.09	Yes
Q72	2.53	0.96	0.48	-0.33	Yes
Q73	2.63	1.02	0.40	-0.71	Yes
Q74	2.61	1.06	0.43	-0.54	Yes
Q75	2.79	1.14	0.22	-0.98	Yes
Q76	2.90	1.08	0.33	-0.80	Yes
Q77	2.60	0.97	0.49	-0.06	Yes
Q78	2.60	0.98	0.32	-0.91	Yes
Q79	2.64	0.90	0.32	-0.69	Yes
Q80	2.50	1.03	0.52	-0.60	Yes
Q81	2.42	1.06	0.44	-0.74	Yes
Q82	2.71	1.05	0.18	-0.92	Yes
Q83	2.74	1.00	0.48	-0.51	Yes
Q84	2.82	0.91	0.14	-0.69	Yes
Q85	2.97	0.96	0.09	-0.76	Yes
Q86	2.88	1.11	0.09	-0.96	Yes
Q87	2.43	0.91	0.91	0.33	Yes
Q88	3.58	0.88	-0.47	-0.34	Yes
Q89	3.34	1.03	-0.47	-0.68	Yes

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Item	Mean	Standard Deviation	Skewness	Kurtosis	Standards Met?
Q90	2.63	1.04	0.23	-1.03	Yes
Q91	2.78	1.02	0.19	-0.96	Yes
Q92	2.73	0.97	0.27	-0.93	Yes
Q93	2.83	1.07	0.29	-0.64	Yes
Q94	3.30	0.92	-0.49	-0.54	Yes
Q95	2.93	1.04	0.29	-0.76	Yes
Q96	3.20	1.02	-0.44	-0.56	Yes
Q97	3.22	0.96	-0.22	-0.97	Yes
Q98	2.94	1.03	0.28	-0.86	Yes
Q99	2.61	0.93	0.33	-0.89	Yes
Q100	3.25	1.08	-0.18	-0.87	Yes
Q101	3.09	0.98	-0.33	-0.95	Yes
Q102	2.83	1.02	0.47	-0.77	Yes
Q103	3.46	0.95	-0.54	-0.58	Yes
Q104	2.88	0.93	0.10	-0.91	Yes
Q105	2.14	0.85	0.76	0.45	Yes
Q106	3.17	1.01	-0.22	-1.07	Yes
Q107	3.03	1.04	0.18	-1.01	Yes
Q108	2.77	1.08	0.38	-0.80	Yes
Q109	3.11	1.02	-0.19	-0.88	Yes
Q110	3.21	1.08	-0.34	-0.91	Yes
Q111	2.60	1.01	0.49	-0.30	Yes
Q112	2.52	0.99	0.69	-0.21	Yes
Q113	3.18	1.03	-0.25	-1.07	Yes
Q114	2.28	0.97	0.88	0.45	Yes
Q115	2.40	0.95	0.64	-0.09	Yes
Q116	2.73	1.06	0.48	-0.51	Yes
Q117	3.58	0.88	-0.47	-0.34	Yes
Q118	3.52	0.95	-0.61	-0.01	Yes
Q119	3.01	1.11	0.01	-1.04	Yes

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Item	Mean	Standard Deviation	Skewness	Kurtosis	Standards Met?
Q120	2.55	1.08	0.73	-0.09	Yes
Q121	3.63	1.01	-0.93	0.46	Yes
Q122	4.16	0.70	-0.57	0.35	Yes
Q123	3.83	0.73	-0.34	0.04	Yes
Q124	4.03	0.84	-0.70	0.28	Yes
Q125	3.72	0.84	-0.45	-0.01	Yes
Q126	3.54	0.86	-0.50	0.35	Yes
Q127	3.28	0.95	-0.07	-0.40	Yes

**We are continuing to monitor and measure Item Q13. If performance continues to be lower, we will replace that item to improve performance.*

Appendix 3: Subscale Performance

Subscale	# Items	# Components (Eigenvalue*)	Cronbach's Alpha
One Team, One Goal	4	1 (2.21)	.73
Belief in Team Efficacy	3	1 (1.48)	.45
Systemic View	3	1 (1.48)	.48
Silo Mentality	3	1 (1.97)	.74
Negative Attitude	3	1 (1.39)	.39
Blaming Culture	4	1 (2.53)	.81
Effective Team Composition	3	1 (1.39)	.38

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Subscale	# Items	# Components (Eigenvalue*)	Cronbach's Alpha
Clear Roles and Responsibilities	3	1 (2.13)	.80
Transformational Team Leadership	3	1 (1.81)	.67
Team Size Too Big	3	1 (2.14)	.79
Unreliable Team Members	3	1 (2.18)	.81
Transactional Team Leadership	3	1 (1.96)	.73
Welcoming Participation Structure	3	1 (1.60)	.55
Interconnectedness	4	1 (2.42)	.77
Team Emotional Intelligence	3	1 (1.89)	.70
Distrust	4	1 (2.50)	.79
Political / Pleasing Culture	3	1 (2.04)	.76
Destructive Dynamics	4	1 (3.27)	.87
Open Information Exchange	4	1 (2.52)	.80
Efficient Meetings	4	1 (2.38)	.77
Collective Knowledge Generation	4	1 (2.17)	.54

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Subscale	# Items	# Components (Eigenvalue*)	Cronbach's Alpha
Active Monitoring and Regulation	3	1 (1.57)	.71
Impulsive Responding and Polarization	4	1 (2.03)	.67
Unbalanced Participation	3	1 (1.95)	.73
Unmanaged Conflict	4	1 (2.55)	.81
Collaborative Problem-Solving	3	1 (1.67)	.59
Strategic Planning and Decision-Making	4	1 (1.64)	.51
Execution and Collective Accountability	4	1 (1.70)	.52
Focus on Continuous Improvement	4	1 (2.13)	.71
Groupthink	4	1 (2.02)	.66
Reactive Responding	3	1 (1.45)	.46
Capitulation	4	1 (1.74)	.54

**Eigenvalues need to be at least 1.0 to represent a component. As can be seen, all Eigenvalues for our subscale exceed this standard.*

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