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# DIEB Evaluator

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**Reliability and validity of the Factors  
and their proxies of the Diversity,  
Inclusion, Equity & Belonging (DIEB)  
Evaluator.**

**SEPTEMBER 2021**

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# Abstract

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This summary presents data on the psychometric properties of the Living Institute Diversity, Inclusion, Equity & Belonging (DIEB) Evaluator used in the Perception Gap Analysis (PGA). The data used includes employees across different sectors and belongs to data up to September 2021. Psychometrics science aims to impose objectivity upon the measurement of both human experience and performance. To do so, any questionnaire based on measurement of human behaviour, especially one that is based on self-report, must be able to meet certain demonstrable criteria in order to be considered an objective measure. This short report demonstrates that the questions used in the DIEB Evaluator, are both valid, reliable and cluster in five-factors addressing central proxies of Diversity, Inclusion, Equity & Belonging.

This report presents information establishing the reliability and validity for the five factors in the DIEB Evaluator, and covering:

## **Reliability**

- Cronbach Alpha Coefficients
  - Table 1.1 – Summary of Cronbach-Alpha coefficients

## **Validity: confirmatory factor analysis**

- Figure 2.1 – Summary of item factor analysis
- Table 2.1 – Inter factor correlation

## **Norm data**

- Table 3.1 – Factors averaged by gender
- Figure 3.1 – Visual representation of the five factors averaged by gender.
- Figure 3.2 – Benchmarking

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# The 5 Factors of the DIEB

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- **Diversity**

Diversity refers to the total makeup of the employee workforce and the amount of diversity present in your organization. Further, it refers to differences in various defining personal traits such as age, gender, race, marital status, ethnic origin, religion, education and many other secondary qualities.

- **Inclusion, Equity and Belonging**

Inclusion refers the state of being made a part of something. Inclusion creates employee engagement and a sense of belonging. Inclusion also refers to the behaviours that ensure the employees feel welcomed and treated equal to the rest.

- **Psychological Safety**

Psychological safety refers to the belief that you will not be punished, humiliated or critiqued for speaking up with ideas, questions, concerns, or mistakes. It is a shared belief held by members of an organization that other colleagues will not embarrass, reject, or punish you for speaking up. Psychological safety is about being your true self without fear of repercussions.

- **Discrimination**

Discrimination is the practice of treating some people less favourably than others on grounds unrelated to merit, normally because they belong to a particular group or category. Structural discrimination is deemed to occur where a provision, criterion, or practice is applied to everyone but the result is to put one group or person at a particular disadvantage.

- **Ambitions**

Ambition describe the strong desire to achieve something and to succeed in one's own career. Ambition is important for companies because ambitious employees boost businesses' productivity and success. However, ambitious employees thrive more and pursue careers in environments that are diverse, inclusive and psychologically safe.

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# Reliability

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## Reliability: Cronbach-alpha Coefficients

An important measure of reliability is the Cronbach-alpha coefficient. The coefficient measures the error variance on the average inter-item correlation. When the error variance is low, which is desirable, the alpha coefficient approaches 1.0. A value of 0.70 is the commonly accepted lower limit (Cortina, 1993; DeVellis, 1991; Field & Hole, 2018; Kline, 1999).

**Table 1.1**  
**Summary of Cronbach-Alpha Coefficients**

	Factors					
	Diversity	Inclusion	Ambitions	Psychological Safety	Discrimination	Entire Scale
Cronbach-Alpha Coefficient	.829	.886	.839	.801	.864	.907

As the numbers in Table 1.1 demonstrate, the questions evaluating proxies in each of the five factors in the DIEB Evaluator have very high Cronbach-Alpha coefficients. In addition, the value of the Cronbach-Alpha for the entire scale provides strong evidence of the reliability of our Evaluator. Consequently, we can assure that the items and factors of our DIEB Evaluator are highly reliable.

# Validity: Confirmatory factor analysis

A Confirmatory factor analysis was used to test the hypothesis that the set of 26 items in our DIEB Evaluator should load onto five distinctive factors.

A principal component analysis with a Varimax rotation and 25 maximum iterations for convergence was used. This analysis revealed that the items load onto five meaningful components.

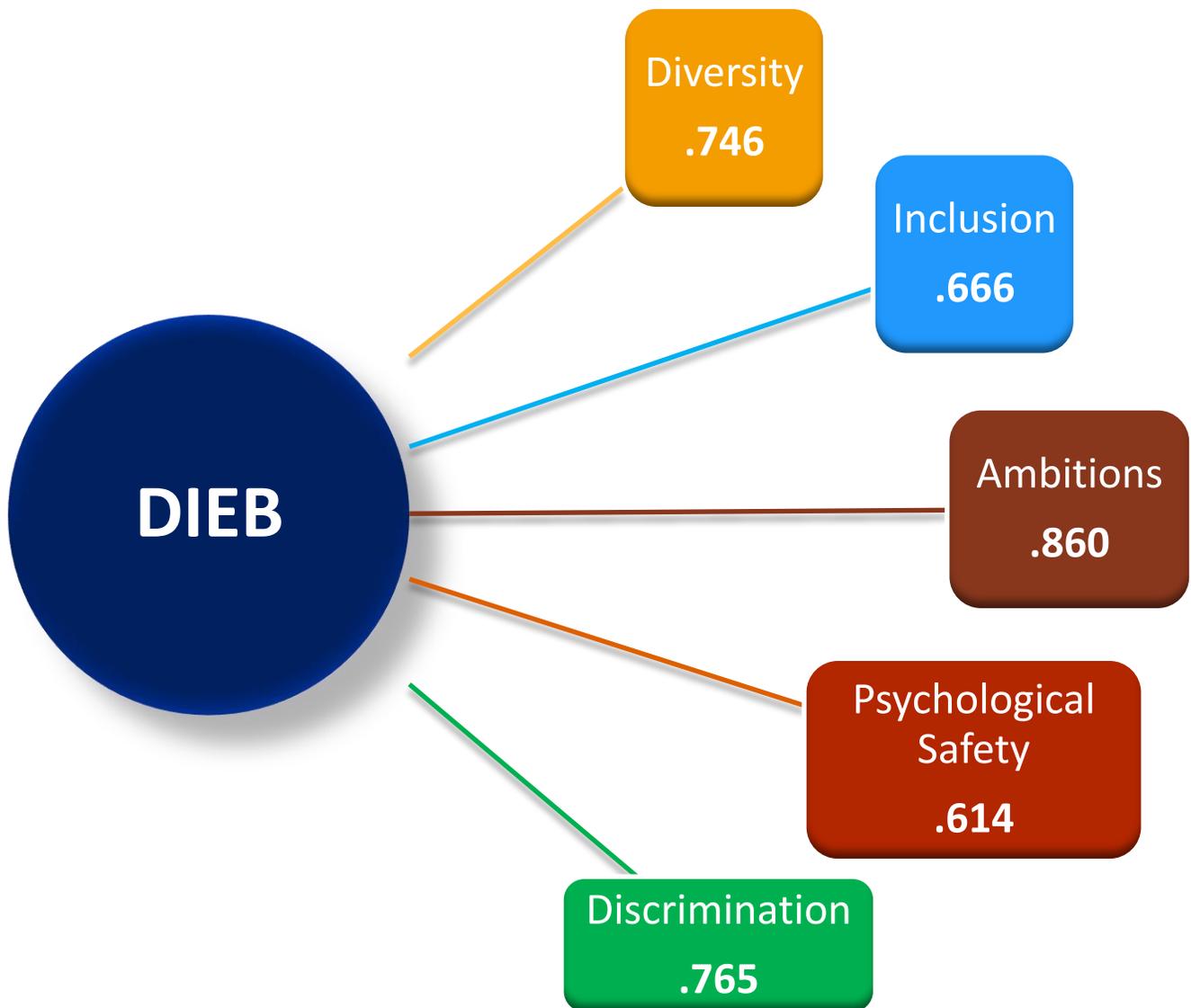


Figure 2.1. Graphical representation for the average item loading onto each of the five factors.

As illustrated in Figure 2.1 the results successfully confirm the hypothesised structure of the 26 items in the DIEB Evaluator. It is worth noting that factor loadings greater than .30 or below -.30 are considered as meeting the minimal level for significant (Hair et al., 1998). The fact that the average loading of items in each of the five-factor structure is higher than .614 in average, offers strong evidence for the construct validity of the DIEB Evaluator.

### Inter-Factor Correlations

Another important measure of construct validity is the case of inter-factor correlations. That is, from a hypothetical point of view, each factor should be related to one another in a meaningful and theoretically sounding way.

**Table 2.1**  
Inter-factor  
correlation coefficient

	Factors			
	Diversity	Inclusion	Ambitions	Psychological Safety
Diversity	1			
Inclusion	.444			
Ambition	.293	.420		
Psychological Safety	.226	.553	.174	
Discrimination	-.165	-.406	-.015	-.584

As table 2.1 proves, all five factors are relate to one another in a meaningful way. The prime example is the Factor *Discrimination*. This factor relates negatively to all other factors: *Diversity*, *Inclusion*, *Ambition*, and *Psychological Safety*. These relationships suggest that employees who experience higher levels of discrimination at work perceived less diversity, experience less sense of inclusion, have less ambitions, and less psychological safety. At the same time, *Diversity*, *Inclusion*, *Ambition*, and *Psychological safety* are related in a positive way to one another, meaning that they affirm each other. For example, employees who experience more *Inclusion* are likely to experience higher *Psychological Safety*, to have more *Ambitions*, etc.

# Norm data

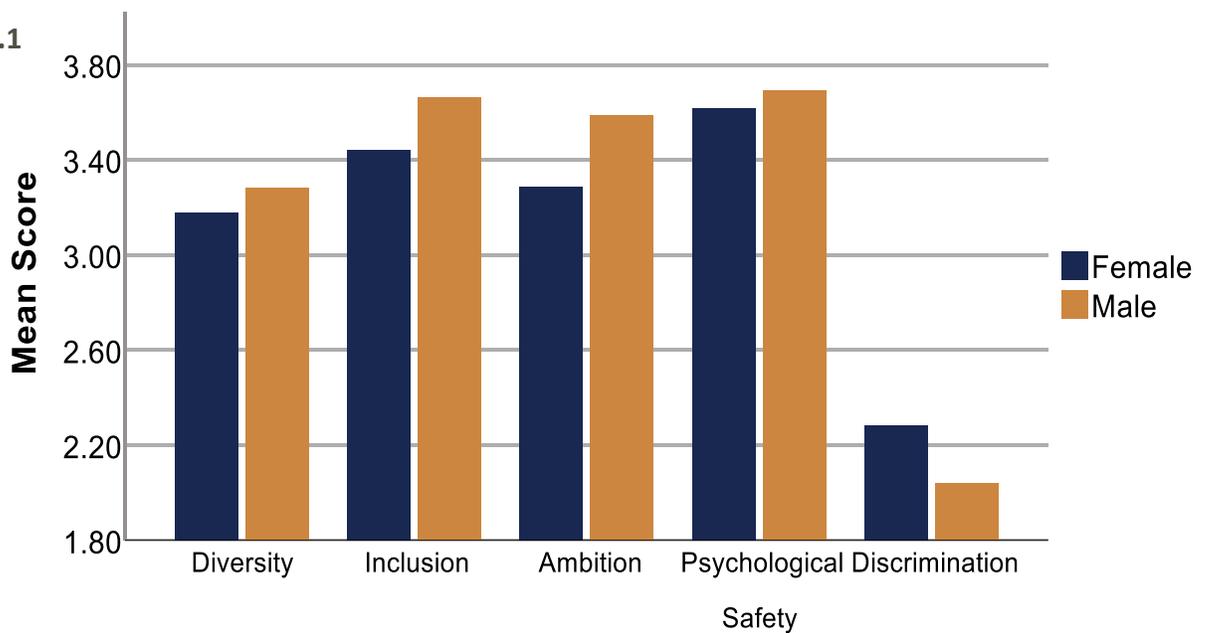
Table 3.1 shows the scores of males and females on the five factors of the DEIB Evaluator.

The data shows that male participants perceive diversity, inclusion and rate their ambitions\* significantly higher than female employees do. On the other hand, female employees report feeling significantly more discriminated than their male counterparts do. ***Do you know how your employees perceive these factors at your company?***

Table 3.1

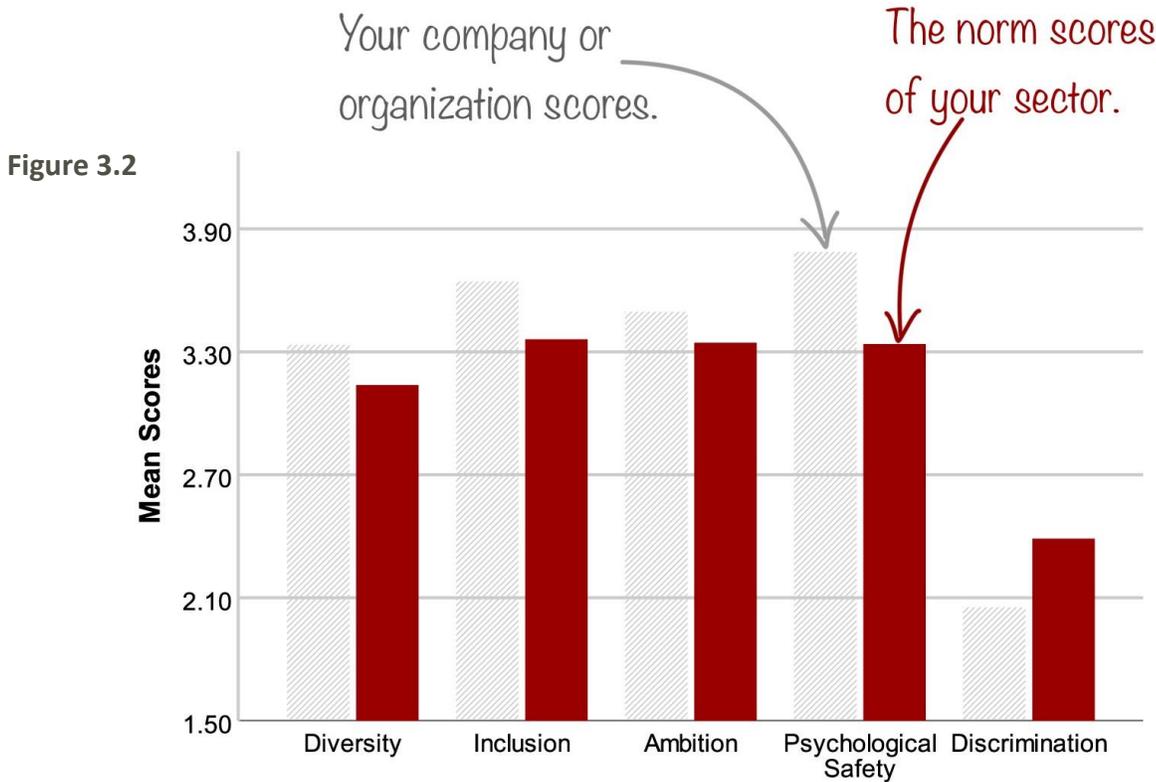
	Five Factors				
Gender	Diversity	Inclusion	Ambitions	Psychological Safety	Discrimination
Female	3.18	3.44	3.29	3.62	2.28
Male	3.28	3.66	3.59	3.69	2.04
General	3.22	3.54	3.42	3.65	2.18

Figure 3.1



## Benchmarking

An important step in evaluating how well your D&I initiatives are doing is to benchmark them against the norm of your sector.



The Living Institute DEIB Evaluator has been validated across the most important sectors in the market. In addition, although the general norms for men and women described above suggest that men usually rate their ambitions higher compared to women (\*), our research has found that this is not the case in all sectors. In fact, in sectors thought to be more male oriented, the DEIB Evaluator has documented that women report having as high leader ambitions as men do. So, what is preventing women employees or other employees with ambitions to become leaders? Find out with our DEIB Evaluator.

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# References

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