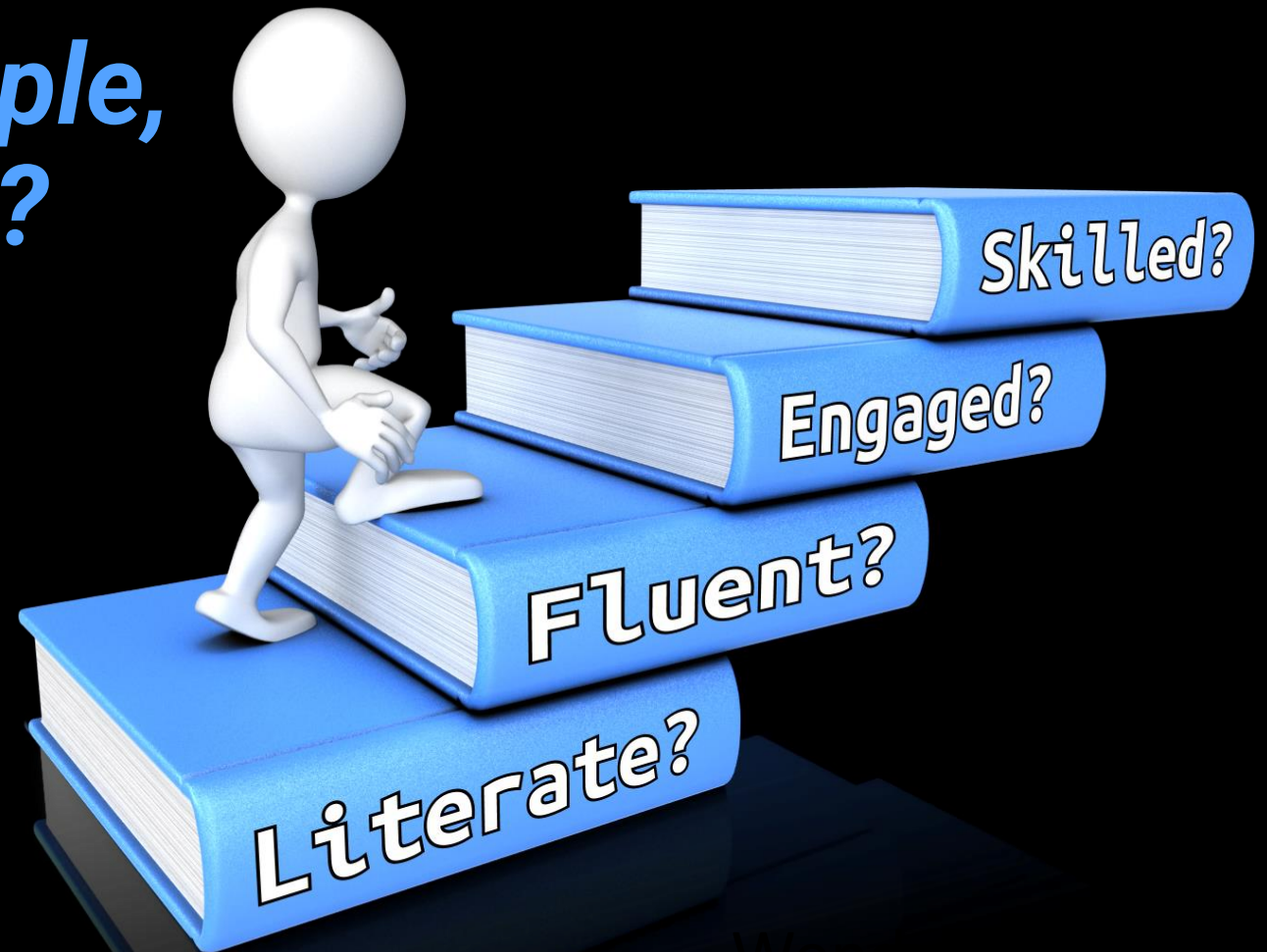


# The Language of Literacy

*When We Label People,  
Does It Help or Hurt?*



ELEVATING  
—ENTERPRISE—  
DATA LITERACY



analytic-translator  
.com

# você fala data?

 Simple terminology

 Basic Request

What's in a label?

Does it matter?

Data Fluent

Data Engagement

Data Savviness      Data Brilliant

Databilities      Data Literate

Data Confidence

Data Empowered      Data Skills

Data Competent

Data Natives      Data Maturity

Data Personas

Data Intelligent

# Either or.....?



Literate

Competent

Mature

Intelligent

Savvy

VS

Illiterate

Incompetent

Immature

Stupid

Ignorant



A roll of yellow measuring tape is shown, partially unrolled. The tape features black markings and numbers, including '3', '4', '5', '6', and '7'. The tape is resting on a dark, reflective surface. The text 'Measures and categories' is overlaid in white on the tape.

Measures and categories

# Straightforward

1. Novice a person new to or inexperienced in a field or situation
2. Intermediate
3. Proficient
4. Advanced
5. Expert



# Levels and Attitudes



intended for school students who have not achieved the level of attainment necessary



# Data literacy continuum

		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
<b>Fifteen Databilities</b>		Basic Awareness With help	Follow instruction given to me	Work on limited tasks on my own	I can apply skills more broadly	Assist others in doing tasks	Teach others
Reading	Data Discovery						
	Evaluating and Ensuring Quality of Data						
Writing	Data Collection						
	Data Management and Organisation						
	Data Manipulation						
	Data Curation and Reuse						
	Metadata Creation and Use						
	Data Conversion (Format to Format)						
Comprehension	Data Analysis						
	Data Interpretation (Understanding Data)						
	Identifying Problems Using Data						
	Data Visualisation						
	Presenting Data (Verbally)						
	Data Driven Decision Making						
	Evaluating Decisions / Conclusions Based on Data						



## THE CURIOUS, THE CONFIDENT, AND THE COACHES

Using the 6 levels of progression outlined in the Databilities® framework, the Global Data Literacy Benchmark has identified 3 cohorts of employees:

- **Those who need direction – the Curious**

When asked to select which statement best described them, the Curious selected Level 1 or Level 2 or indicated that none of the progression statements described them.

- **Those who are independent – the Confident**

When asked to select which level of competency best described them, the Confident selected Level 3 or Level 4.

- **Those who can guide others – the Coaches**

When asked to select which level of competency best described them, the Coaches selected Level 5 or Level 6.



# Personas



**Data Skeptic**

**Doesn't believe  
in the value of data**



**Data Enthusiast**

**Excited and willing  
to learn**



**Data Literate**



**Citizen Analyst**



**Data Scientist**



**Data-driven  
Executive**

The logo for 'Data Dreamer' features the words 'Data Dreamer' in a cursive font. Below the text is a decorative horizontal line with a central crescent moon and two small stars on either side.

Data  
Dreamer

**Data Dreamers** are keen beans who **recognize the importance** of working with data and its benefits to their organizational roles. The downside: they may take data at face value because they **don't know how** to interrogate it properly. They **need to improve** their data skills

The logo for 'Data Doubter' features the words 'Data DOUBTER' inside a cloud-like shape. 'Data' is in a cursive font and 'DOUBTER' is in a bold, uppercase sans-serif font. There are small stars and circles around the cloud.

Data  
DOUBTER

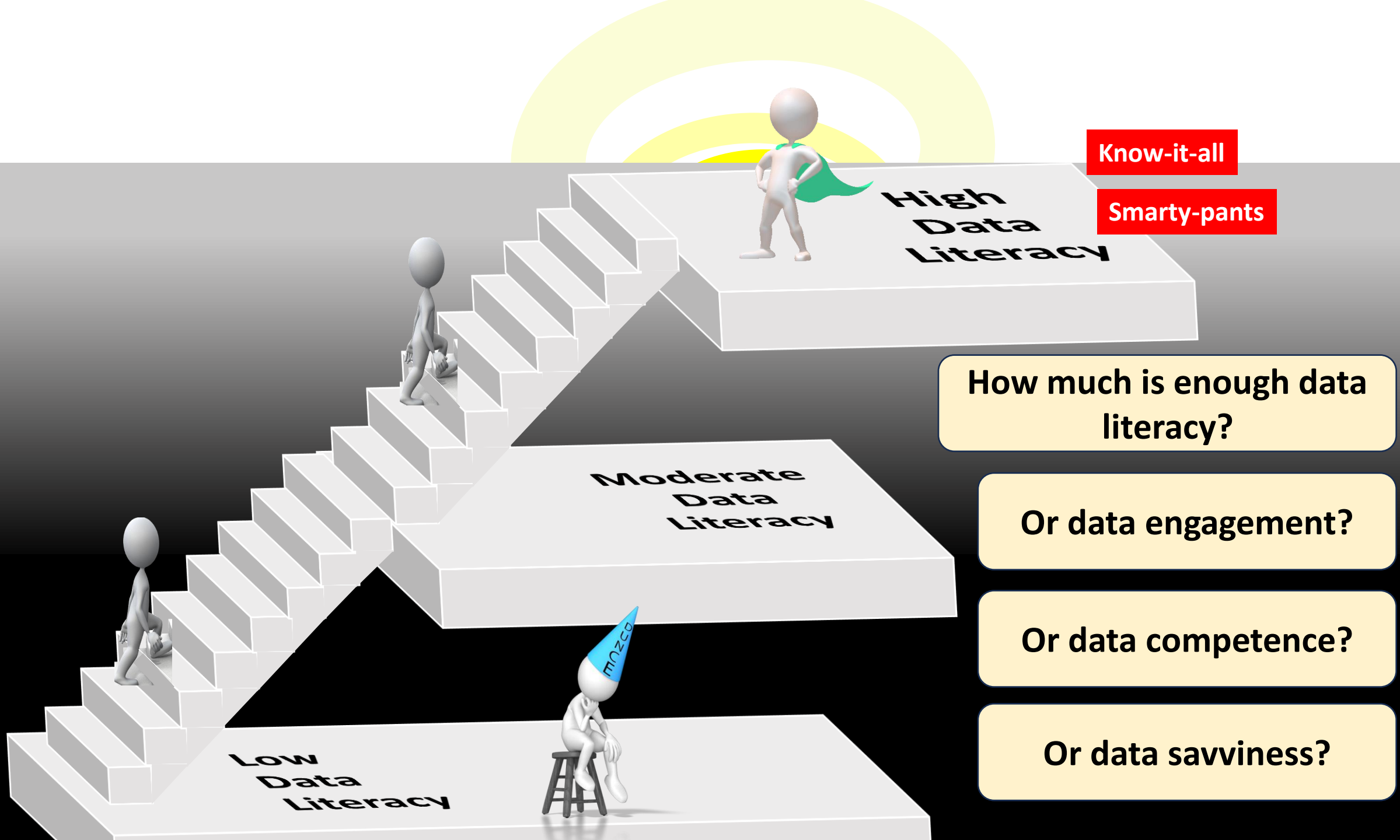
**Data Doubter:** Intuition never lies is the Data Doubter's motto. In his or her mind, automated processes and data-driven decisions are no match for gut-feel. These employees **are fed up** with the amount of facts bombarding them every day. Often they **just ignore** them, so why would they use them at work? They prefer to **leave analysis up to data experts.**



**Data Aristocrat:** No data stone goes unturned when the Data Aristocrat is around. His or her **high aptitude** for understanding bodes well for future opportunities. Appeal to the Data Aristocrat to **help up-skill and uplift others** through mentoring, communicating and training



**Data Knights:** feel the weight of ever-increasing data stores, sometimes becoming **overwhelmed** by it all. They are **skilled** at battling data, but their armor is not bullet proof. Use Data Knight skills wisely, combining their knowledge of smart data discovery with **laser sharp analysis** to the benefit of the organization.

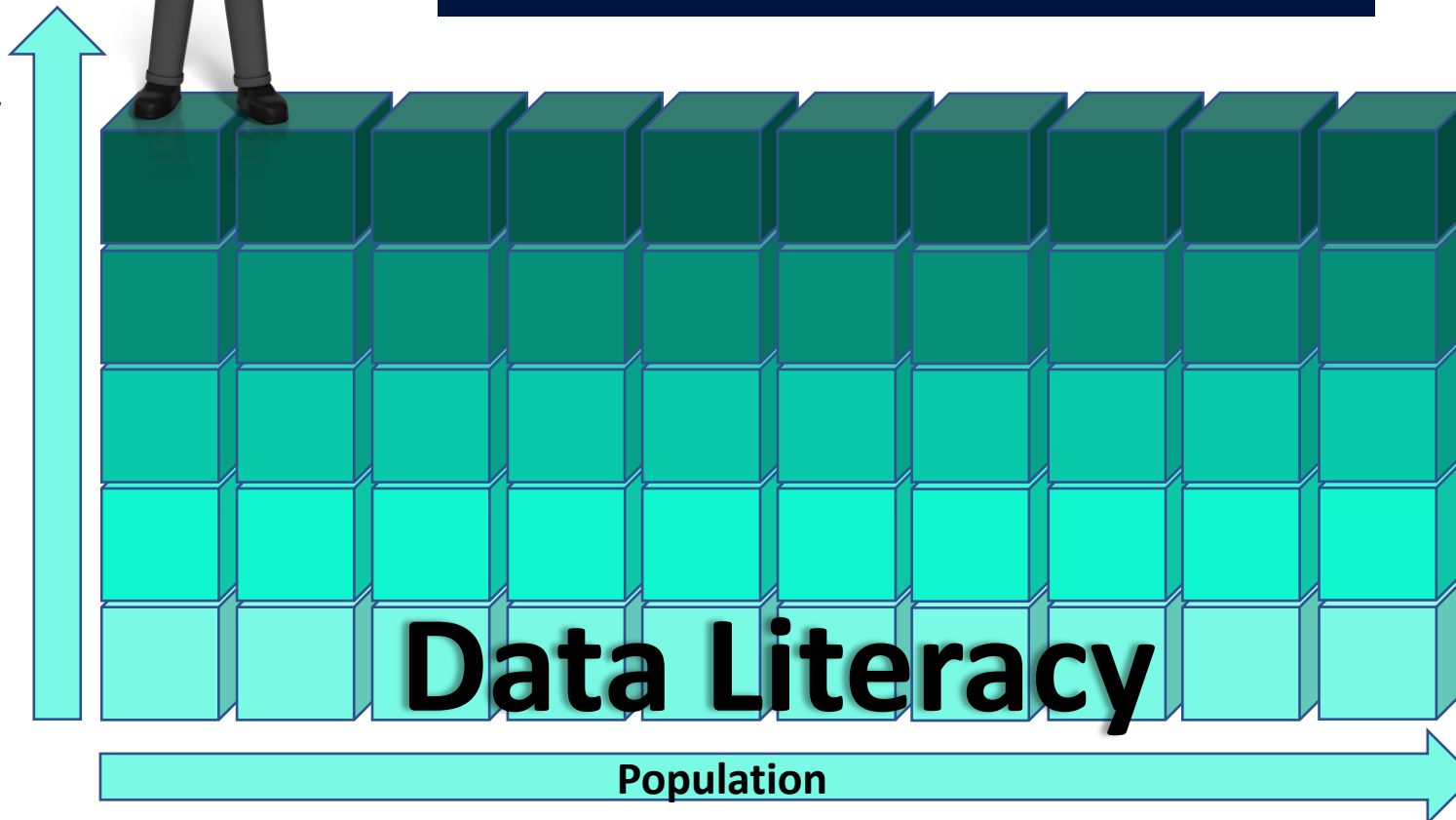


# Yes, It's Important



**Ninety percent** of business leaders believe data literacy will be critical to their success.

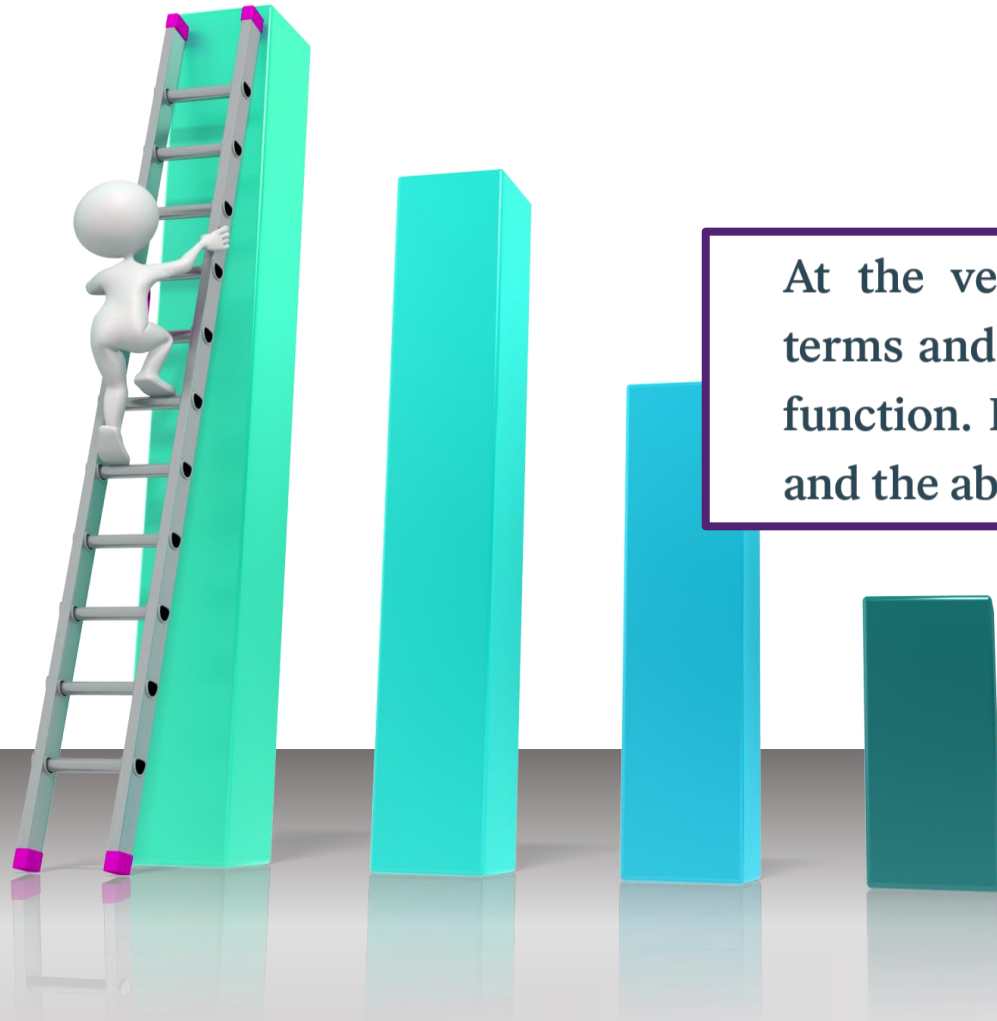
Proficiency  
With  
Data



Teach/perform analysis  
Explain complex analytics  
Convince with  
Understand  
Read/recognize



# How literate?



Data Literacy is set to be the second language of business.

At the very least, individuals should know how key business terms and metrics are defined, particularly those relevant to their function. Ideally, they should also have a basic grasp of statistics and the ability to interpret charts and analytics accurately.

**The least literate teams were identified as Human Resources and Sales**

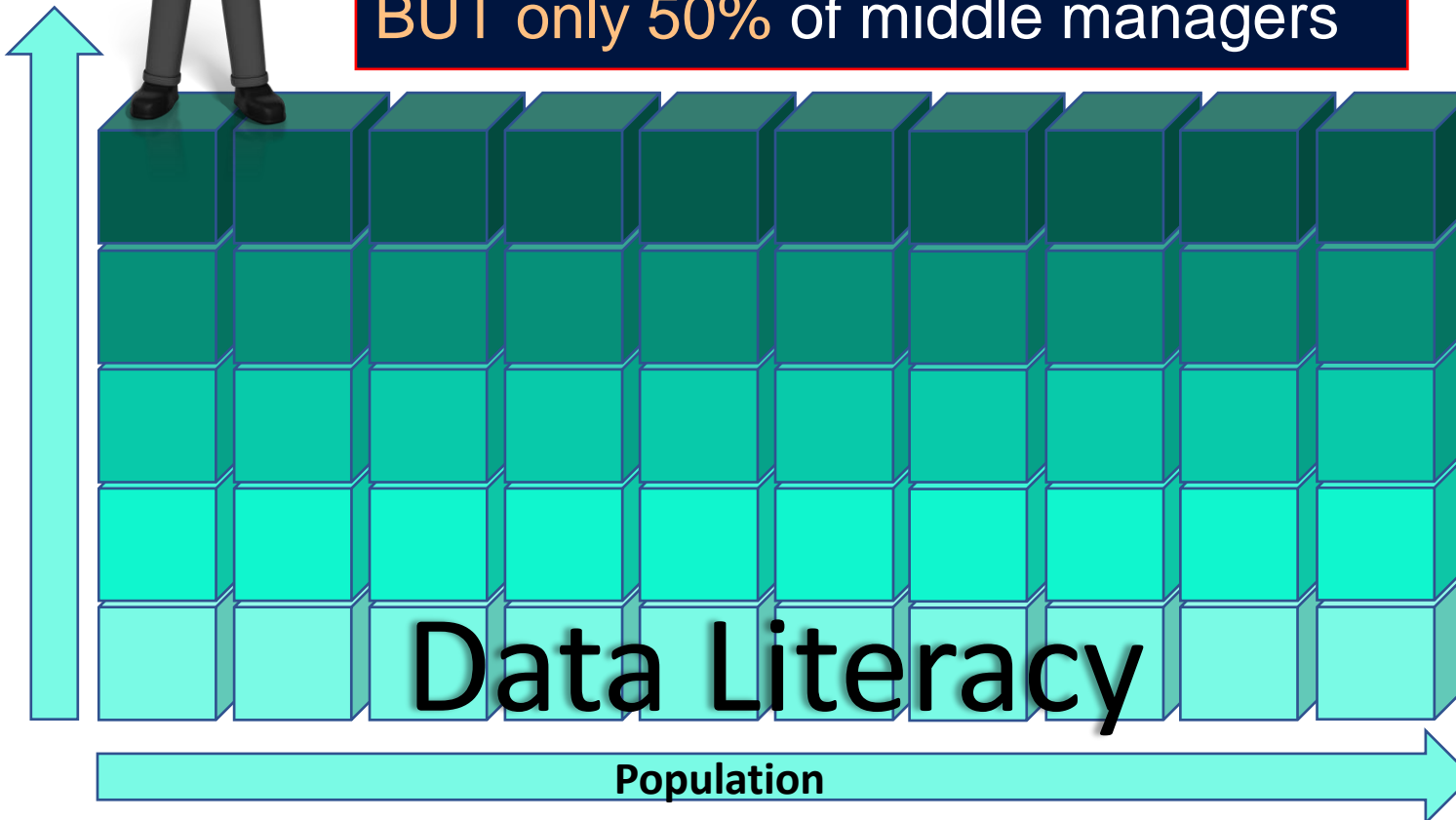
# Leaders overestimate literacy



75 percent of business leaders believe **most or all** of their workers are data literate

**BUT only 50%** of middle managers

Proficiency  
With  
Data

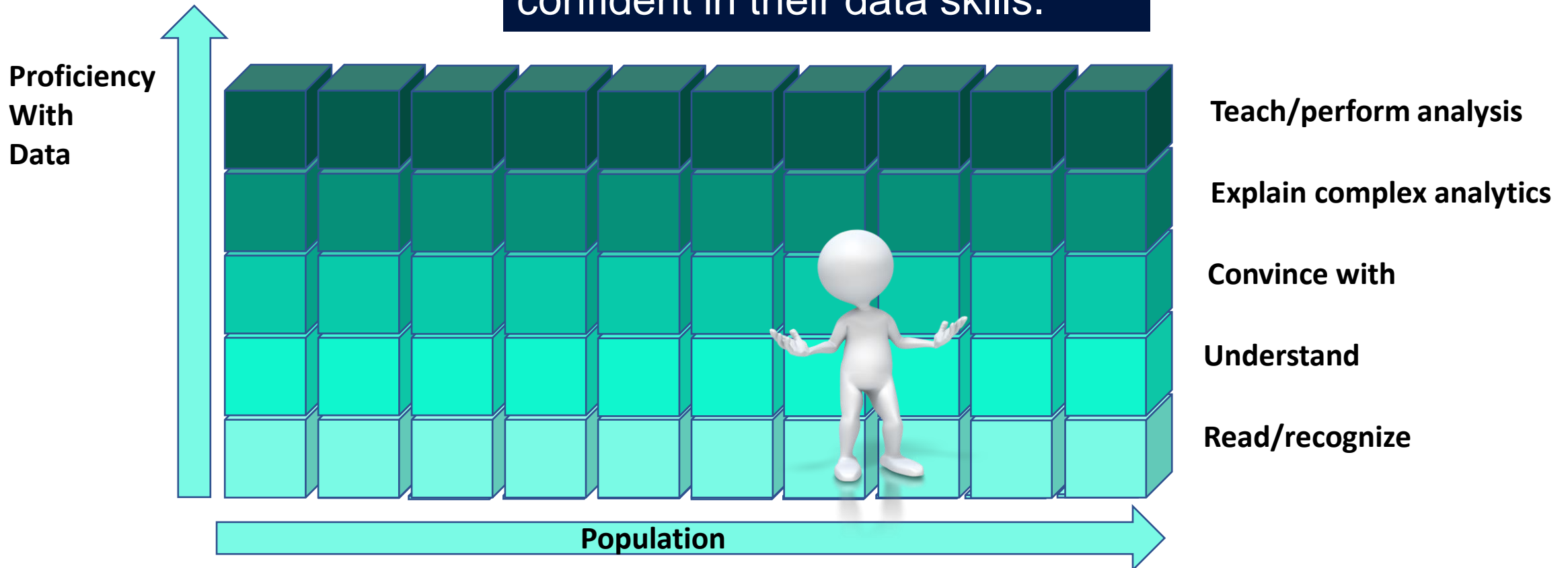


Teach/perform analysis  
Explain complex analytics  
Convince with  
Understand  
Read/recognize

# Who is **actually** literate now?

Some studies report as few as **8%** are highly skilled.

**25 percent** of employees are confident in their data skills.



# And what can we expect ?

62% of US adults  
operate a very base  
math level

There are some limits to  
the number of people  
who will become highly  
data literate.

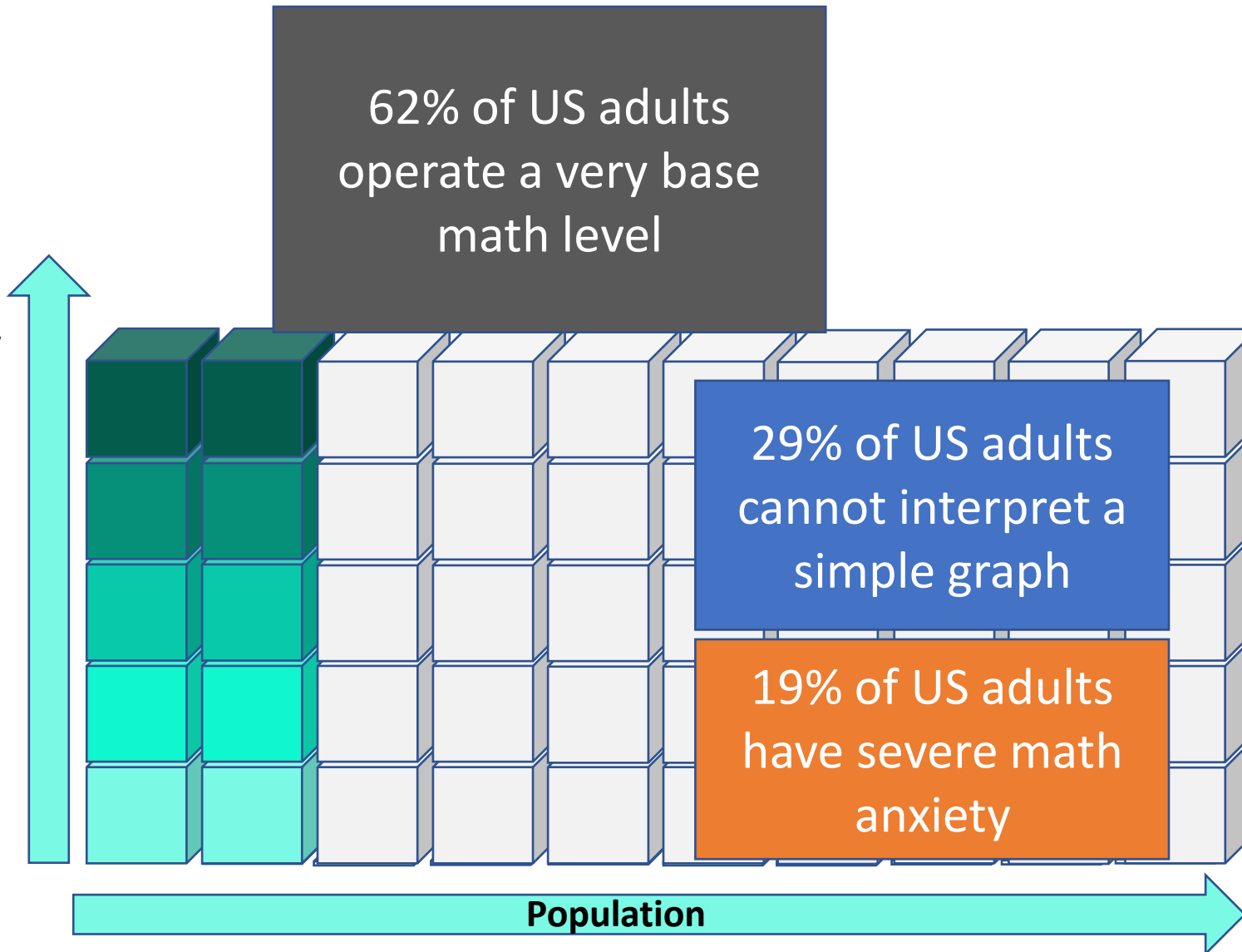
Proficiency  
With  
Data

29% of US adults  
cannot interpret a  
simple graph

19% of US adults  
have severe math  
anxiety

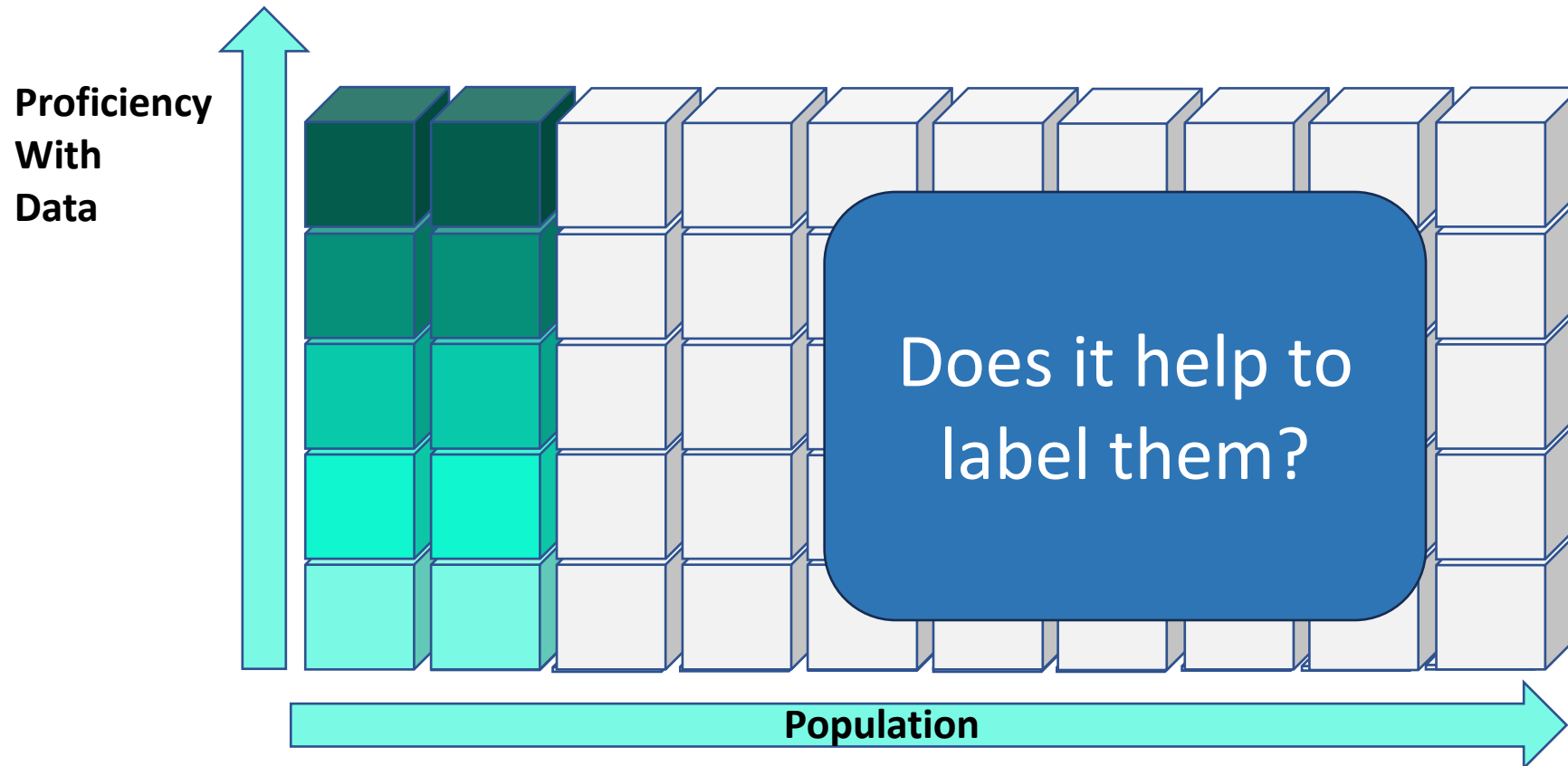
Detectible on  
fMRI as pain  
and fear.

Population



# A Majority of Employees are NOT Highly Literate

If high literacy is the exception....  
Should that change how we think about the issue?

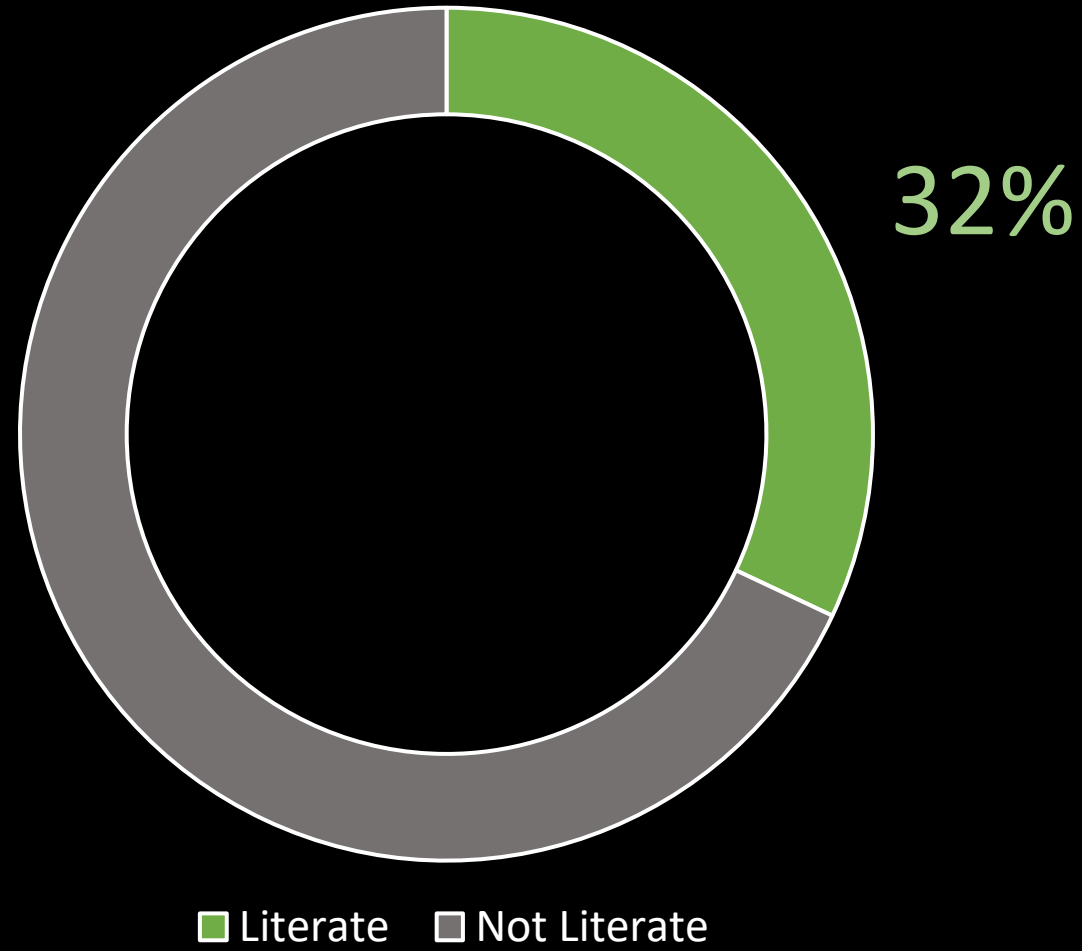


Illiterates here





# Percent of C-Suite Executives Considered Data Literate





# What about Strategic Alignment?

(a.k.a. Business Literacy)

People and processes are aligned in their purpose and goals.



**Employees must understand strategy to implement it.**

## Why Your Employees Need to Understand 'The Why'

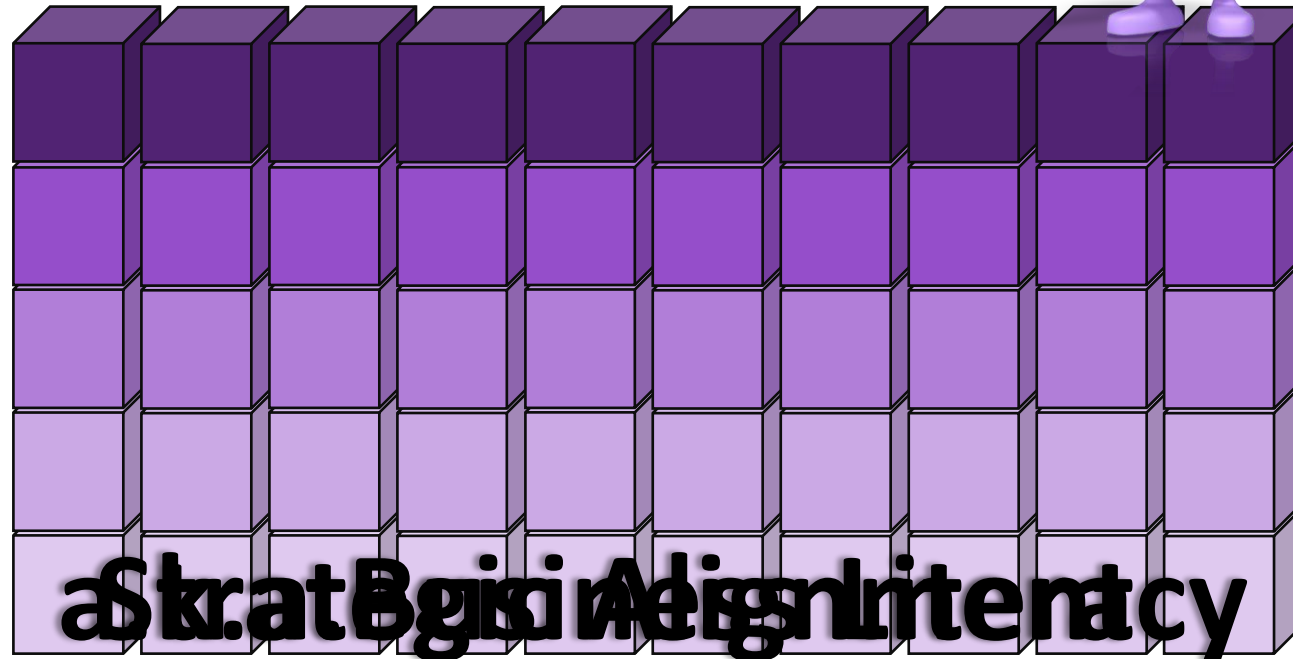
**Companies whose people are aligned on strategy grow revenue 58% faster and are 72% more profitable**

# Leaders think strategy is clear

52% of executives have confidence that **most employees** can explain company strategy



Strategic Alignment



Create strategy

Tie decisions to strategy

Can communicate strategy

Connect my job to KPIs

Do my job

Population

Strategic Alignment

# How many understand strategy?

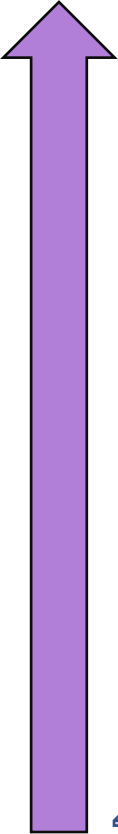
Only 29.3 percent correctly identified business strategy From a multiple-choice list

Only 13% of frontline managers could name their company's top three priorities

According to a study by PWC, **93% of employees** could not articulate their company's strategy



Strategic Alignment



- Create strategy
- Tie activities to strategy
- Can communicate strategy
- Connect my job to KPIs
- Do my job

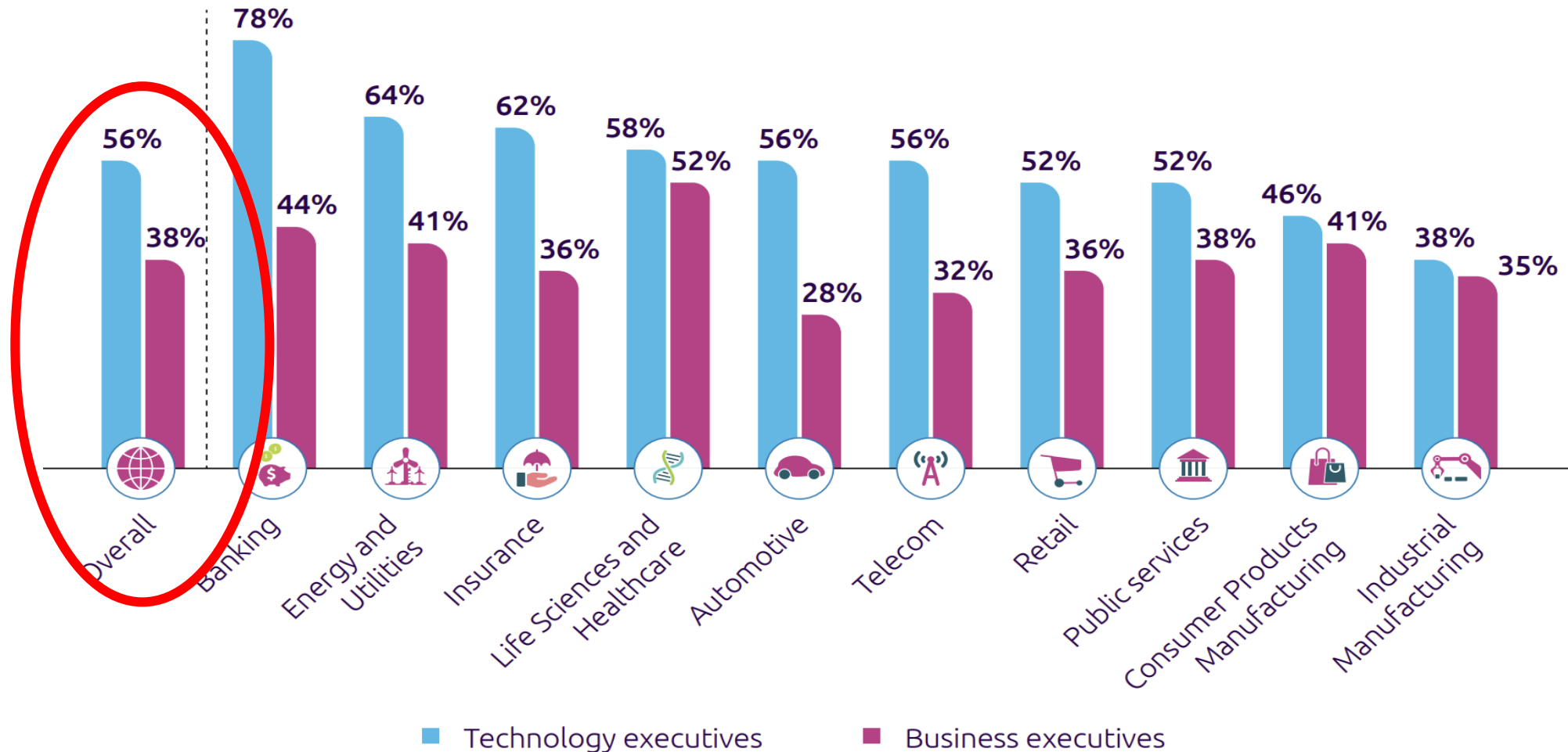


**Strategic alignment between  
business and technology explains  
80% of the difference between  
company performance**



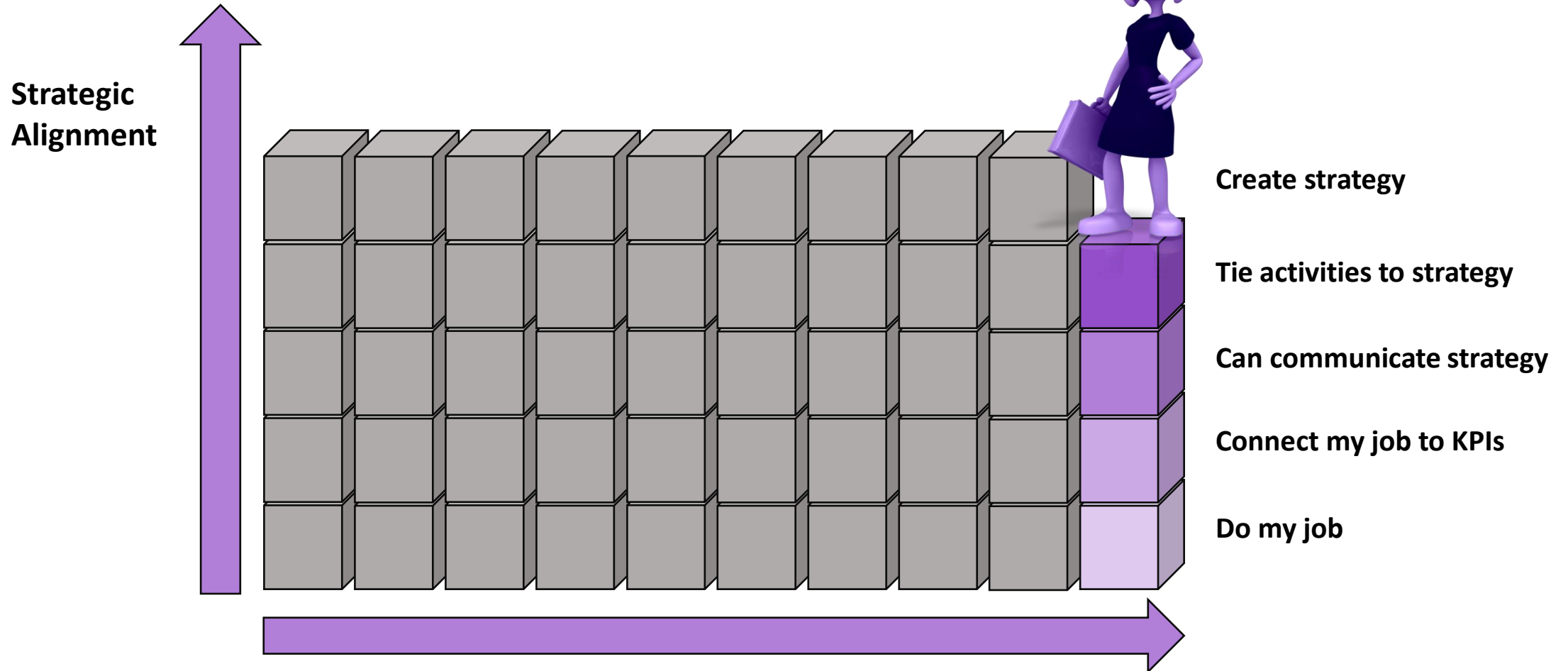
# Business and technology executives differ on whether data strategy is aligned with organizational vision

Our data/analytics strategy is aligned with overall business strategy



# A Majority of Employees are NOT Highly Literate

If high literacy is the exception....  
Should that change how we think about the issue?



# Data Fluency Levels

<b>Multilingual</b>	<b>Fluent across three elements of information language</b> across multiple business domains, industries and ecosystems
<b>Fluent</b>	<b>Fluent in all three elements of information language</b> across most business domains within an industry vertical
<b>Competent</b>	<b>Competent in designing, developing, and applying data and analytic programs</b>
<b>Literate</b>	<b>Ability to speak, write and engage with data</b> and analytics programs and use cases
<b>Conversational</b>	<b>Basic understanding</b> of concepts of data analytics; someone who <b>“gets it”</b> but cannot explain it to others
<b>Introductory</b>	<b>Becoming familiar with terminology.</b> Recognizes certain words, can understand and speak a few appropriately.

# Data Fluency Levels

Parlez-vous data?



Dataset.

Columns.

Rows.

Graphs.

**Introductory**

**Becoming familiar with terminology.** Recognizes certain words, can understand and speak a few appropriately.



Average. Median. Standard deviation. Comparison. Outlier. Prediction.

**Conversational**

**Basic understanding** of concepts of data analytics;  
someone who **“gets it”** but cannot explain it to others

**Introductory**

**Becoming familiar with terminology.** Recognizes certain words,  
can understand and speak a few appropriately.



The scores for group one are significantly higher than the scores for group two.

Literate	Ability to speak, write and engage with data and analytics programs and use cases
Conversational	Basic understanding of concepts of data analytics; someone who “gets it” but cannot explain it to others
Introductory	Becoming familiar with terminology. Recognizes certain words, can understand and speak a few appropriately.





We need you to identify the factors that are most strongly associated with success.

<b>Competent</b>	<b>Competent in designing, developing, and applying data and analytic programs</b>
<b>Literate</b>	<b>Ability to speak, write and engage with data and analytics programs and use cases</b>
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Controlling for demographics and salary, we found significant differences between groups. Our prediction models achieved an r-square of .6, with several interaction terms (with age) being significant at the .05 level, indicating that the slopes of linear relationships are different for different generations.

<b>Fluent</b>	<b>Fluent in all three elements of information language</b> across most business domains within an industry vertical
<b>Competent</b>	<b>Competent in designing, developing, and applying data and analytic programs</b>
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# Next concept: Emotional/Social Awareness (a.k.a. People literacy)

**52% of HR leaders** say they will be hiring managers based on their emotional intelligence

**Managers with high EQ had teams that averaged 15-20% higher revenue**

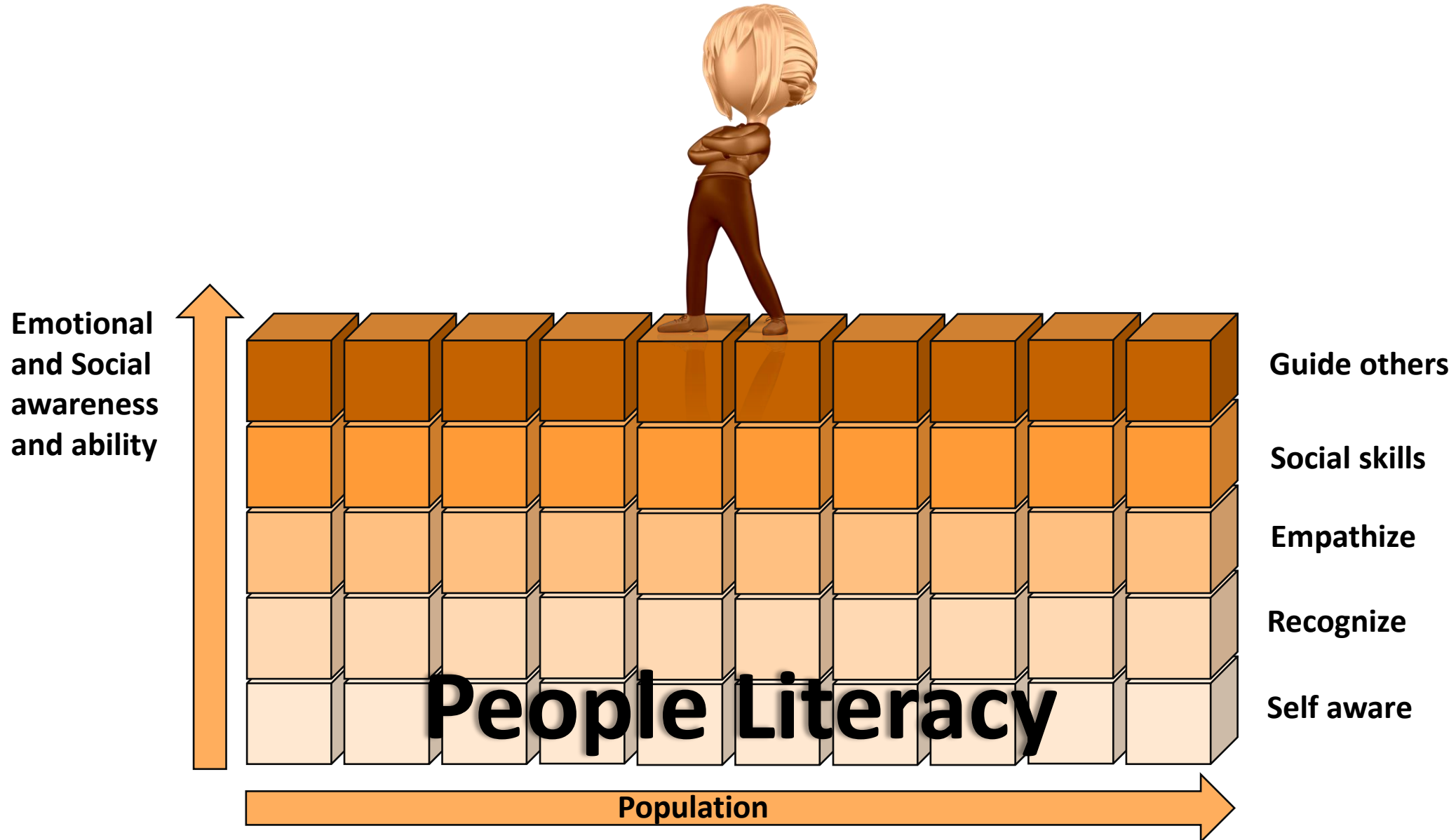
Forbes

LEADERSHIP

## The Importance Of Emotional Intelligence In Business

**80% of long-term job success depends on EQ, while only 20% on IQ**

# What is it?





# Why it's especially important for data efforts

Forbes

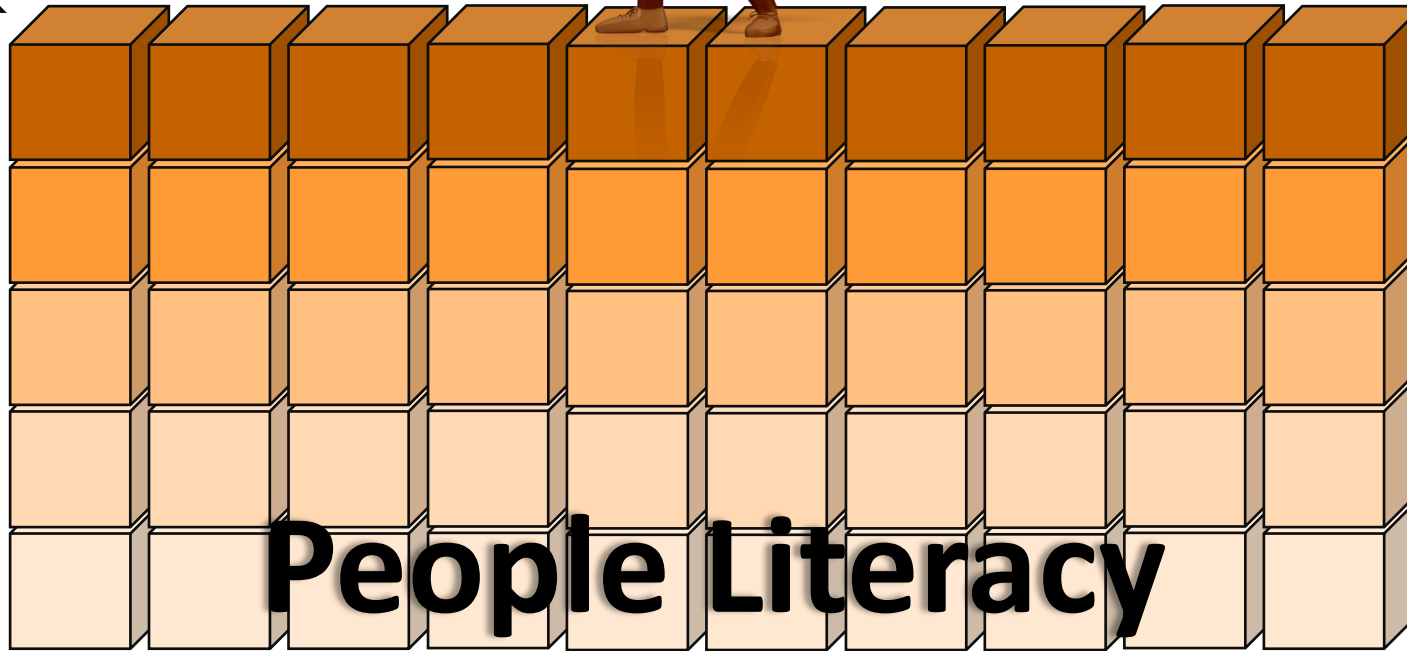
Digital Transformation Is  
80% EQ And 20% IQ

It's people issues that make or break it

90% of companies intend to accelerate  
digital transformation.

70% of transformation projects fall short.

Emotional  
and Social  
awareness  
and ability



Guide others

Social skills

Empathize

Recognize

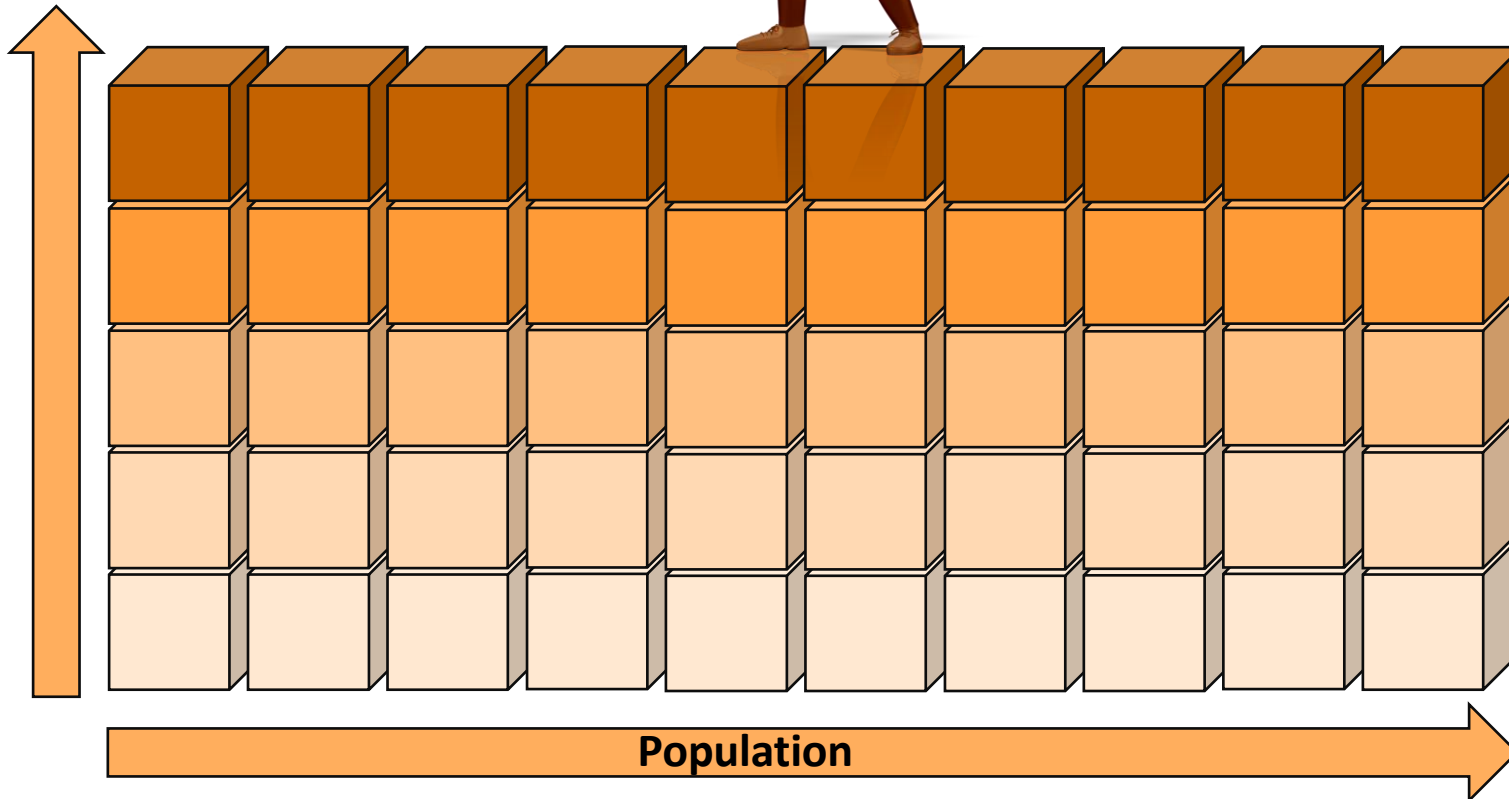
Self aware

Population

# A Majority of Employees are NOT Highly Literate

If high literacy is the exception....  
Should that change how we think about the issue?

Emotional  
and Social  
awareness  
and ability





# Is Literacy Really the Goal?

# Or is it to be: Highly Insight Driven

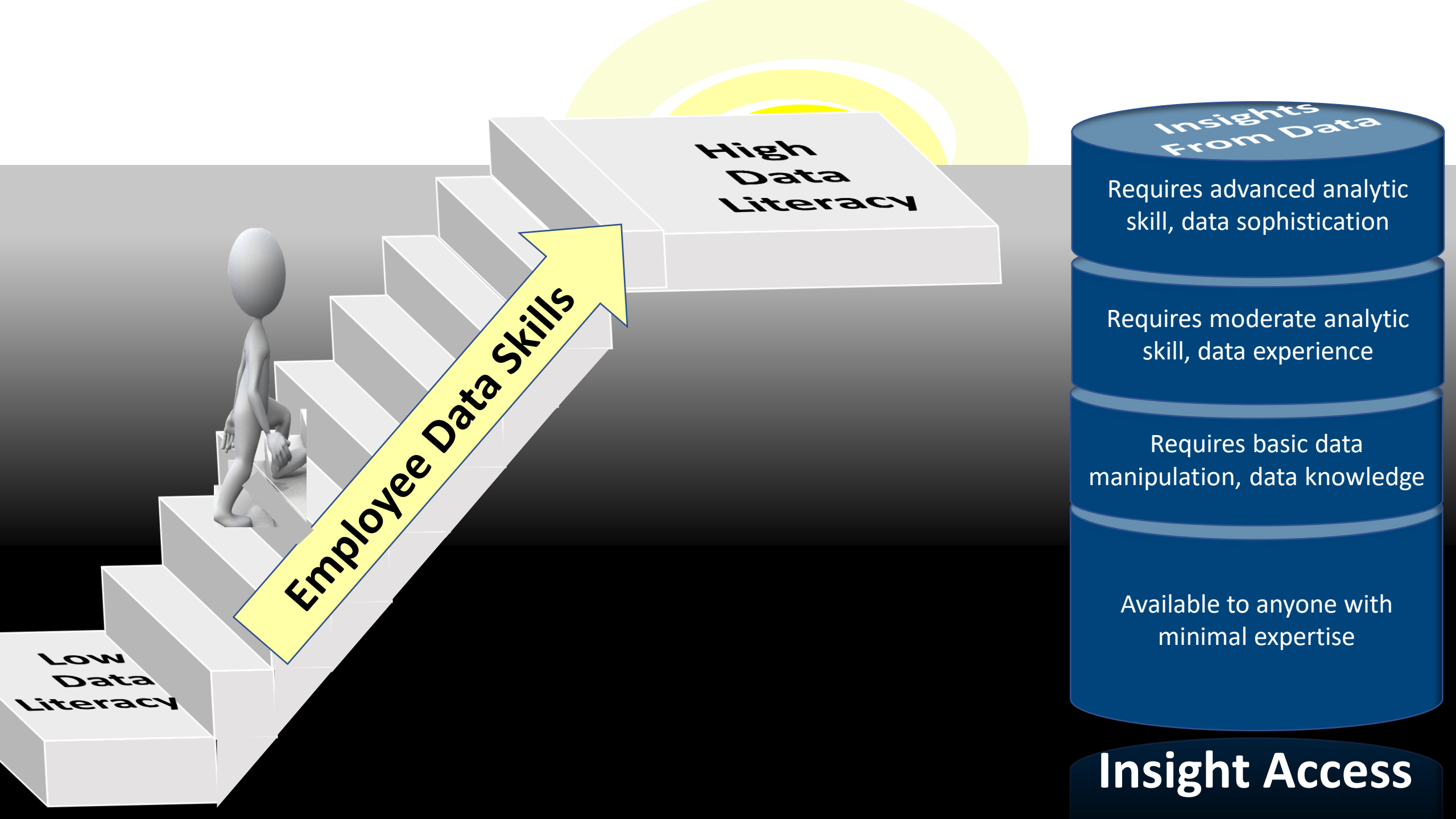


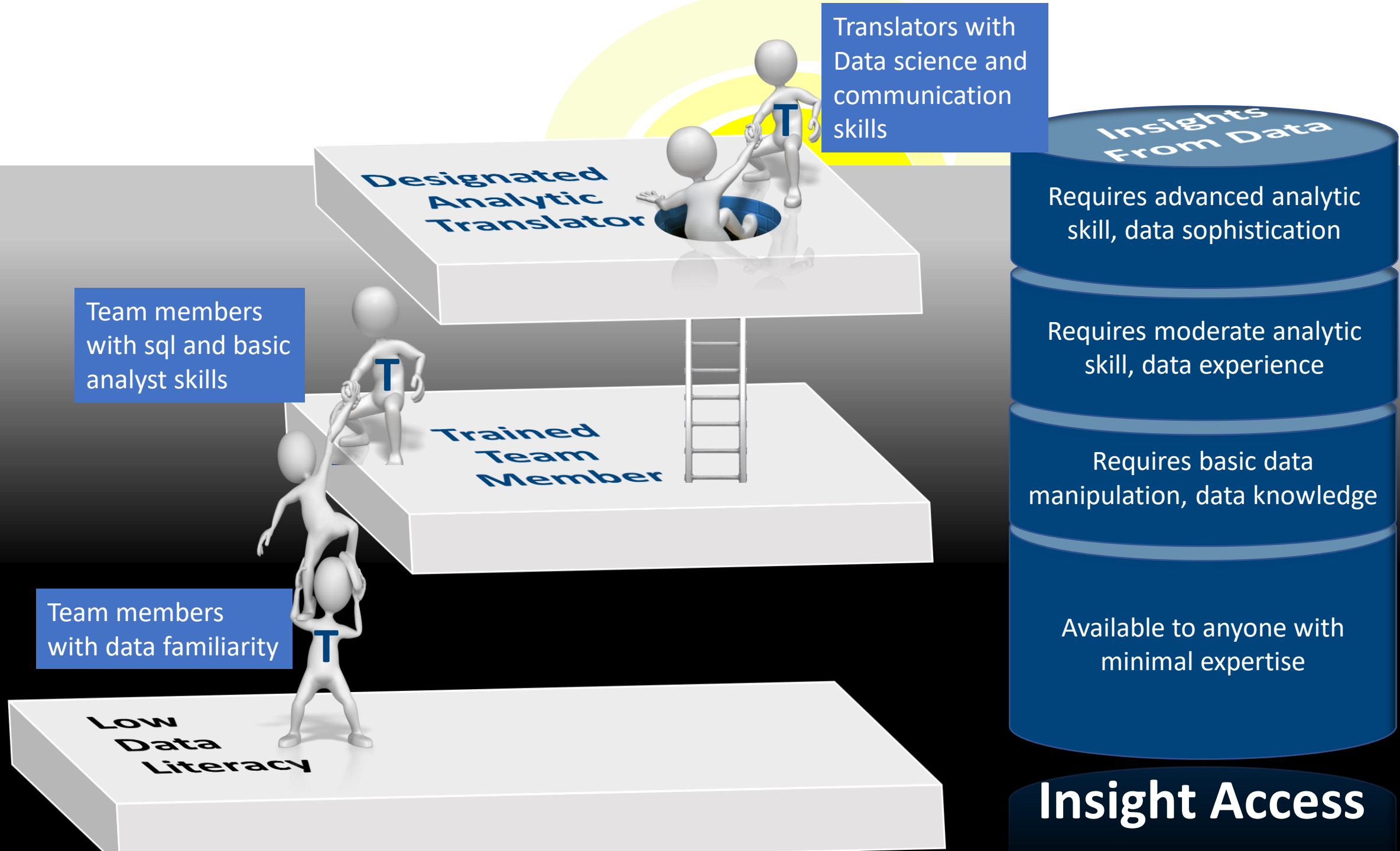
**Company-wide intelligent, information-driven decisions and actions.**

**Consistently**

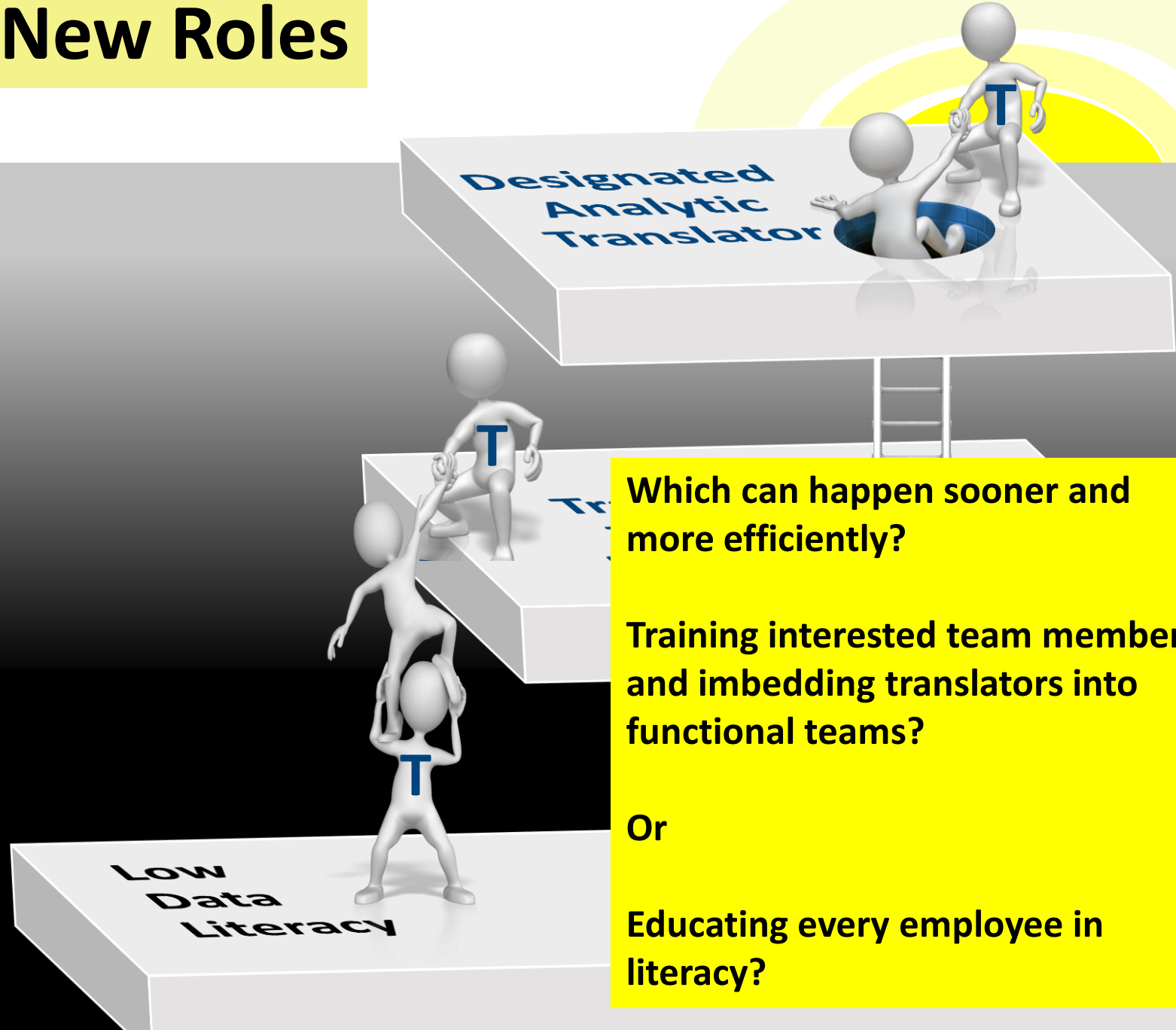
- Use timely information
- Notice problems and opportunities
- Ask better questions
- Make better decisions
- Extract insights at all levels

**Low Literacy**





# New Roles



**Which can happen sooner and more efficiently?**

**Training interested team members and imbedding translators into functional teams?**

**Or**

**Educating every employee in literacy?**



# Data Fluency Levels

<b>Translator</b>	<b>Trained in relating to many types of people</b> as well as fluent across multiple business and analytic domains
<b>Multilingual</b>	<b>Fluent across three elements of information language</b> across multiple business domains, industries and ecosystems
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Data Savviness      Data Brilliant

Databilities      Data Literate

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Data Empowered      Data Skills

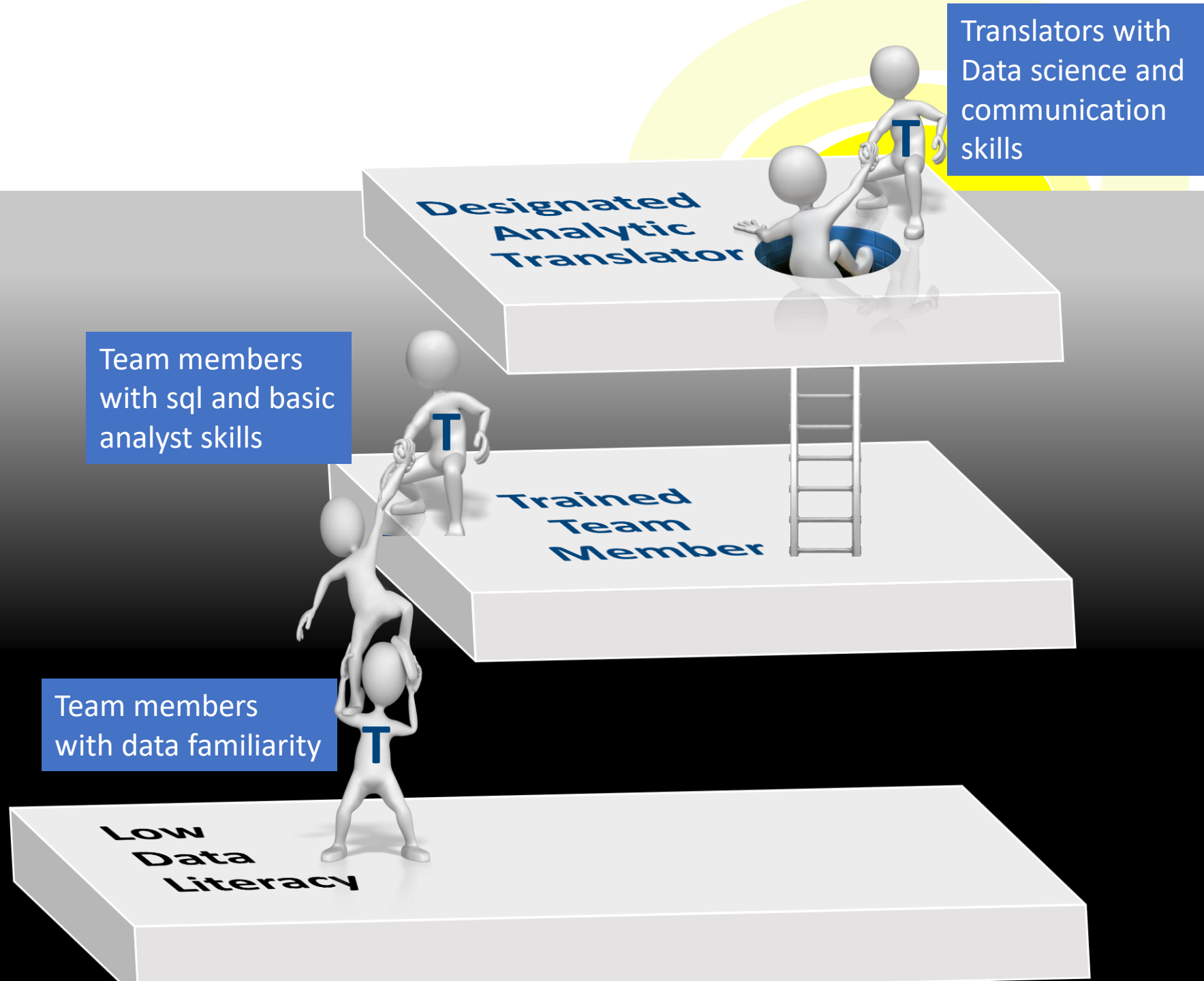
Data Competent

Data Natives      Data Maturity

Data Personas

Data Intelligent





Translators with Data science and communication skills

Team members with sql and basic analyst skills

Team members with data familiarity

Low Data Literacy

Trained Team Member

Designated Analytic Translator

Leverage the abilities, interests and skills that people already have.





analytic-translator  
.com



# Analytic Translators may be part of the solution

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Linkedin: @wendylynchphD