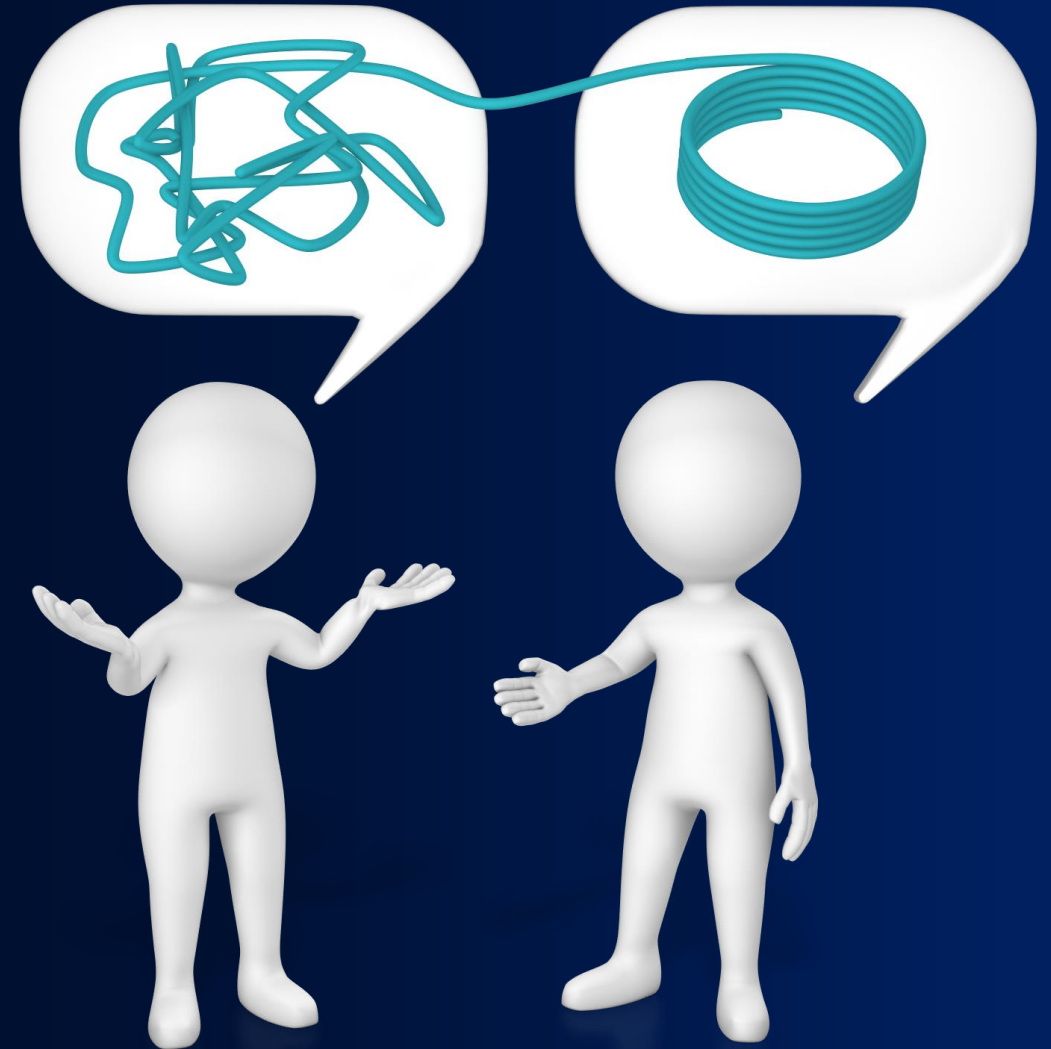


Analytic Translators

How Do They Fit
in the Literacy Discussion?



High Literacy

Ability to identify and understand data sources, analyze data to derive insights, and use these insights to make value-added decisions.

Low Literacy



High Literacy

Businesses with the highest levels of data mastery (policies, people, technology) have **70% higher revenue** per person.

High-performing businesses have data and analytics programs contributing “**at least 20% to earnings.**”

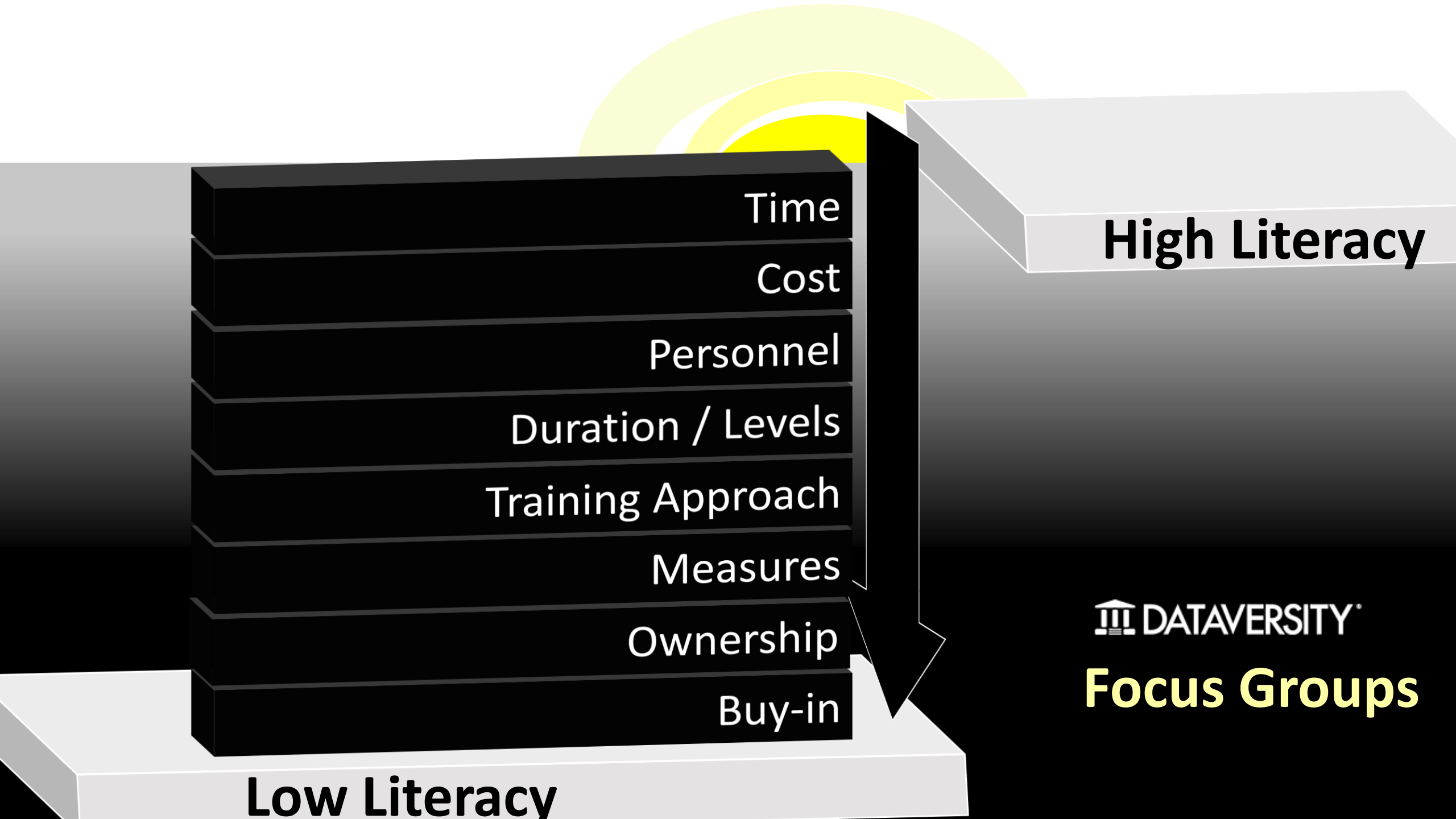
Low Literacy

1. Capgemini, The data-powered enterprise.
2. McKinsey. From Dataversity

High Literacy

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

Low Literacy



Time

Cost

Personnel

Duration / Levels

Training Approach

Measures

Ownership

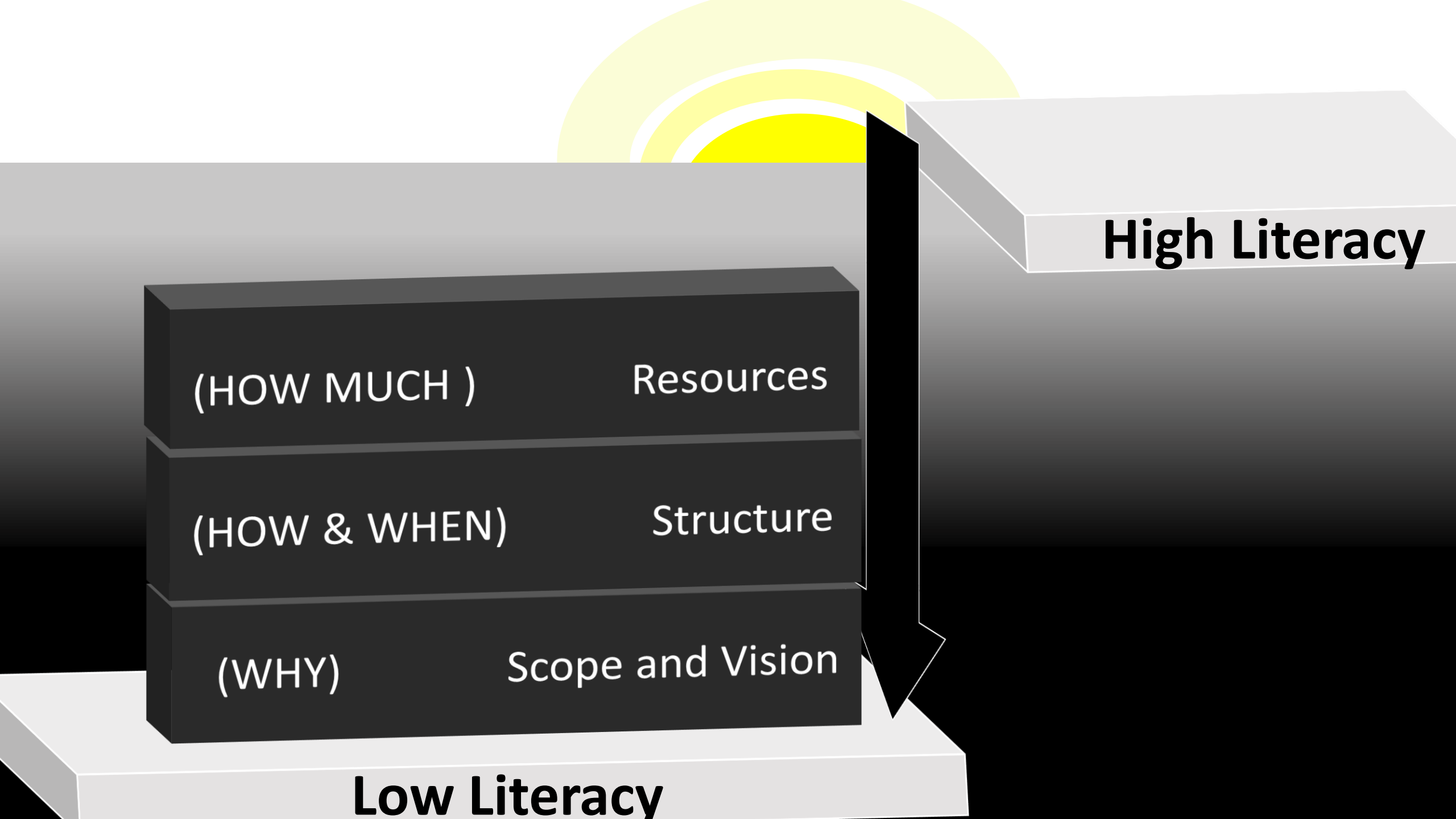
Buy-in

High Literacy

Low Literacy

 DATAVERSITY

Focus Groups



High Literacy

(HOW MUCH)

Resources

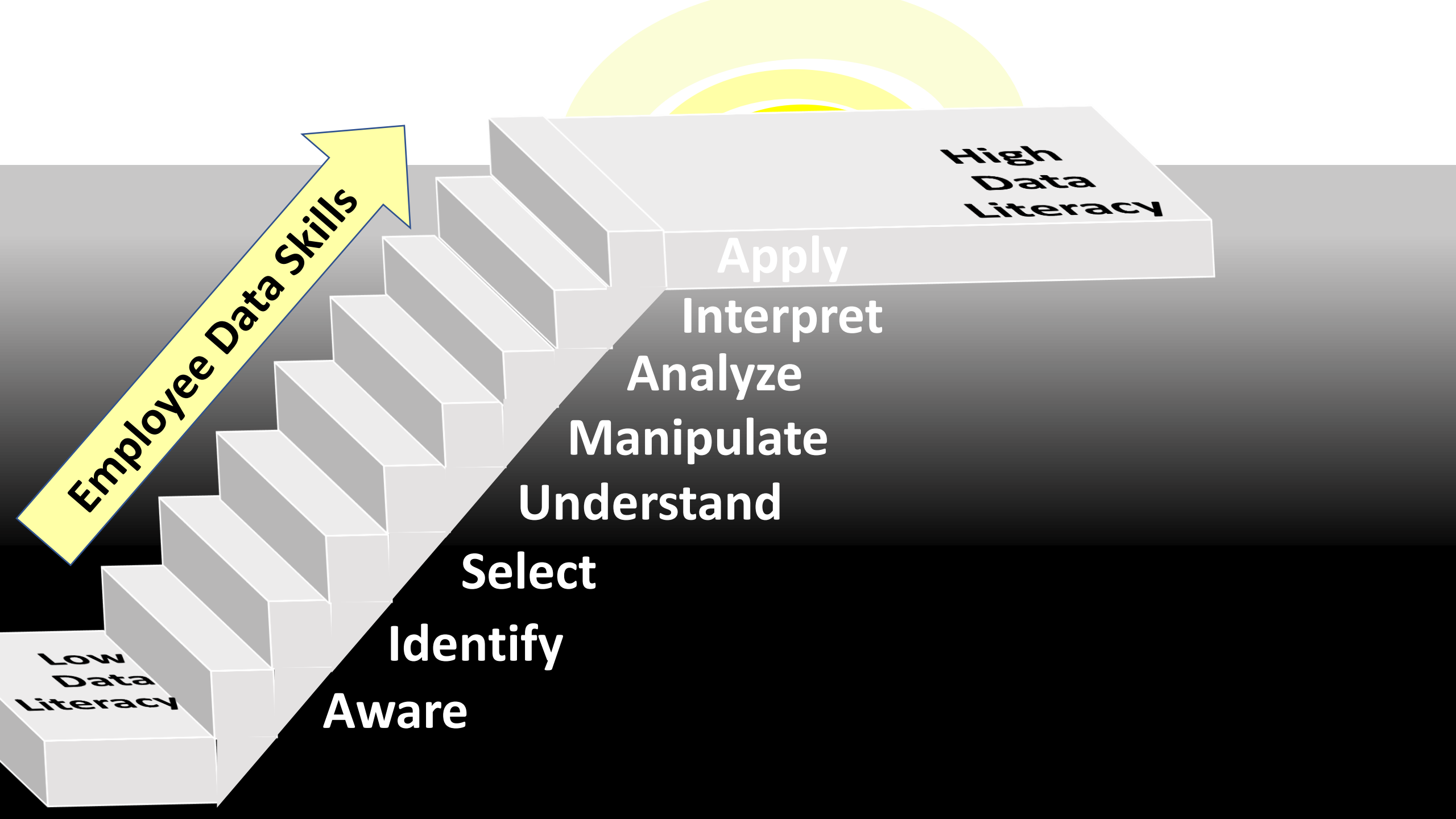
(HOW & WHEN)

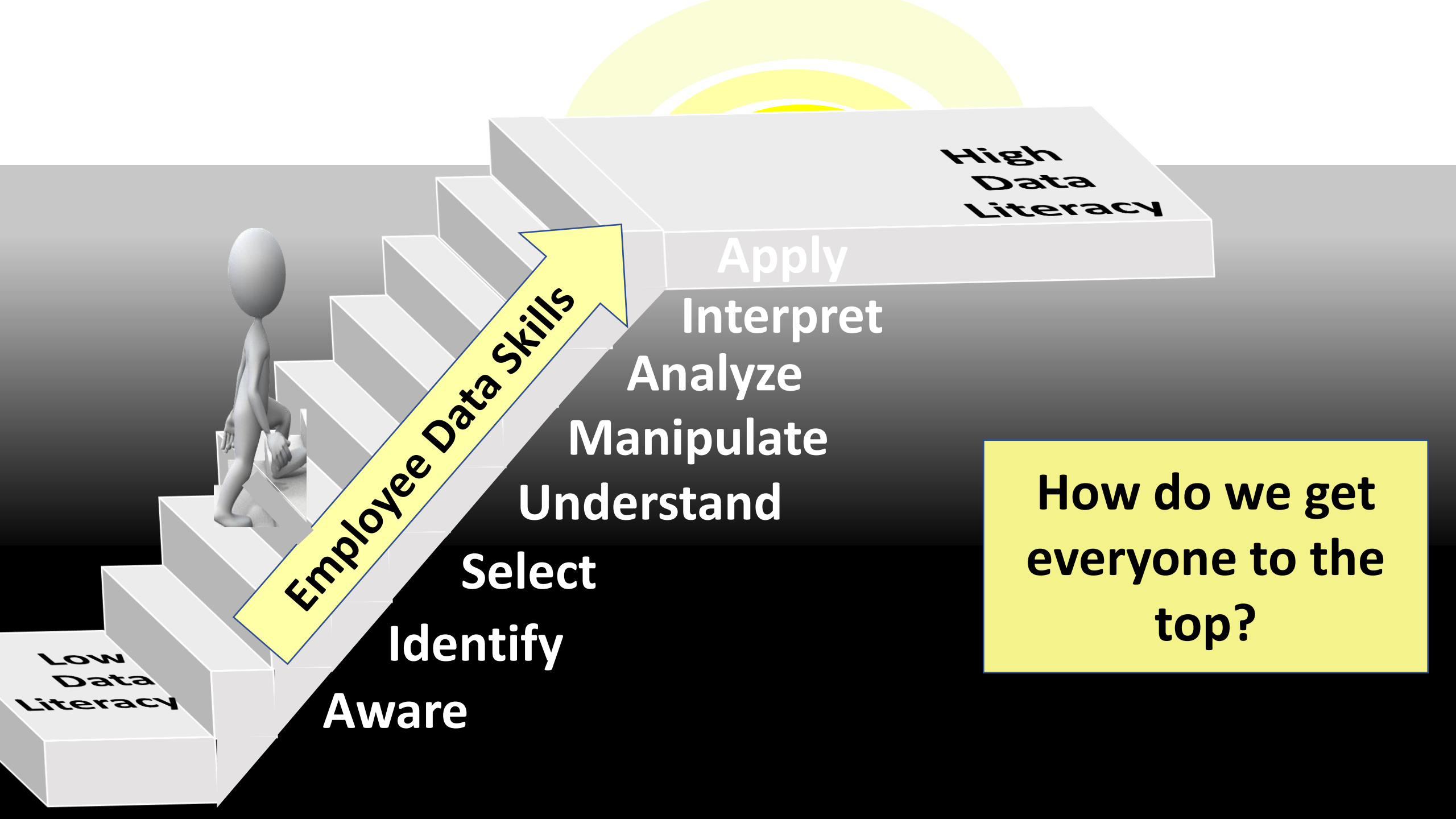
Structure

(WHY)

Scope and Vision

Low Literacy





Training

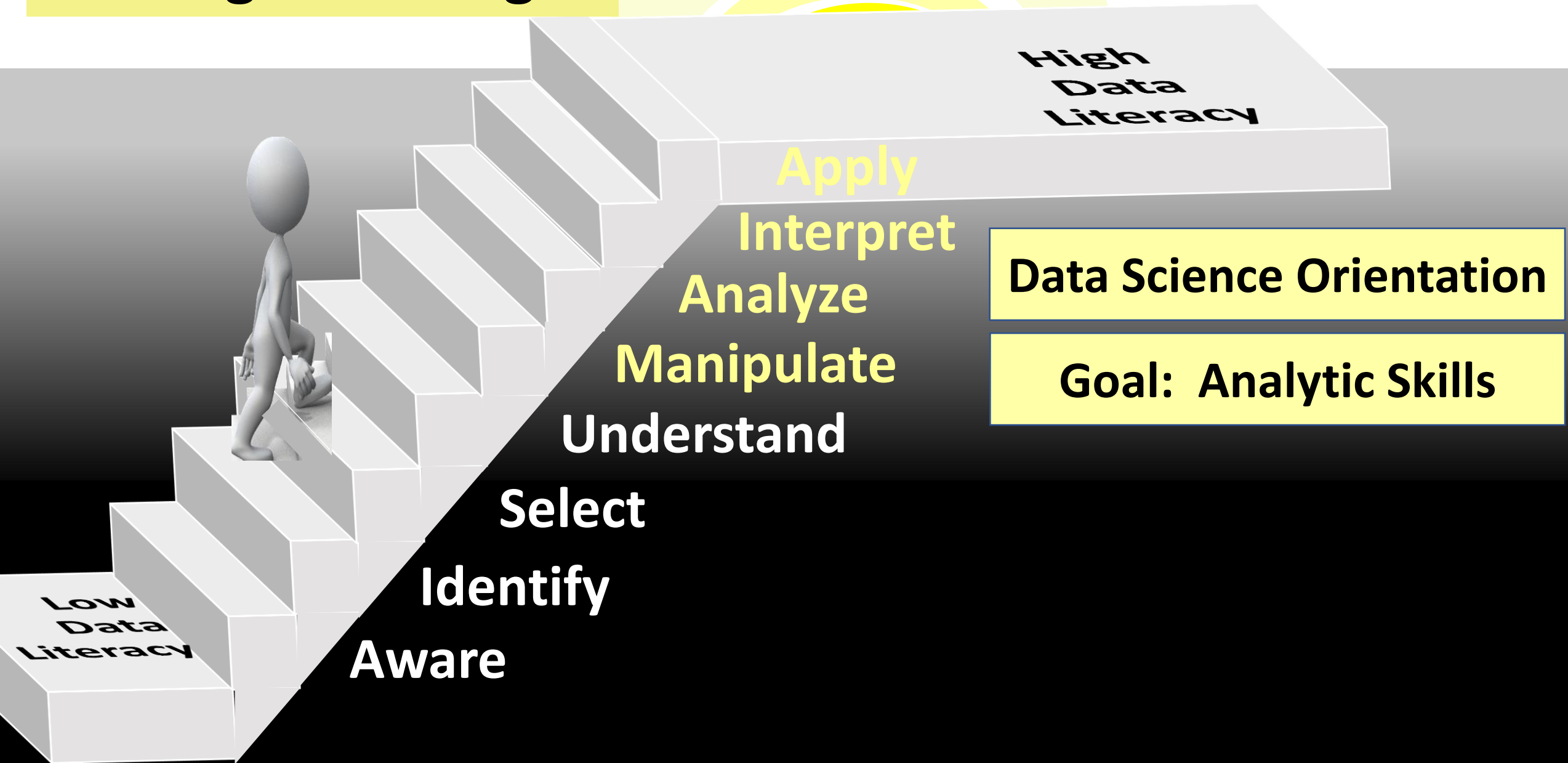
Designate owner
Make the business case
Structured education
Individual/teams
Relevant examples
Clear ties to role

LOW
Data
Literacy

High
Data
Literacy



Training – how high?



High
Data
Literacy

Apply

Interpret

Analyze

Manipulate

Understand

Select

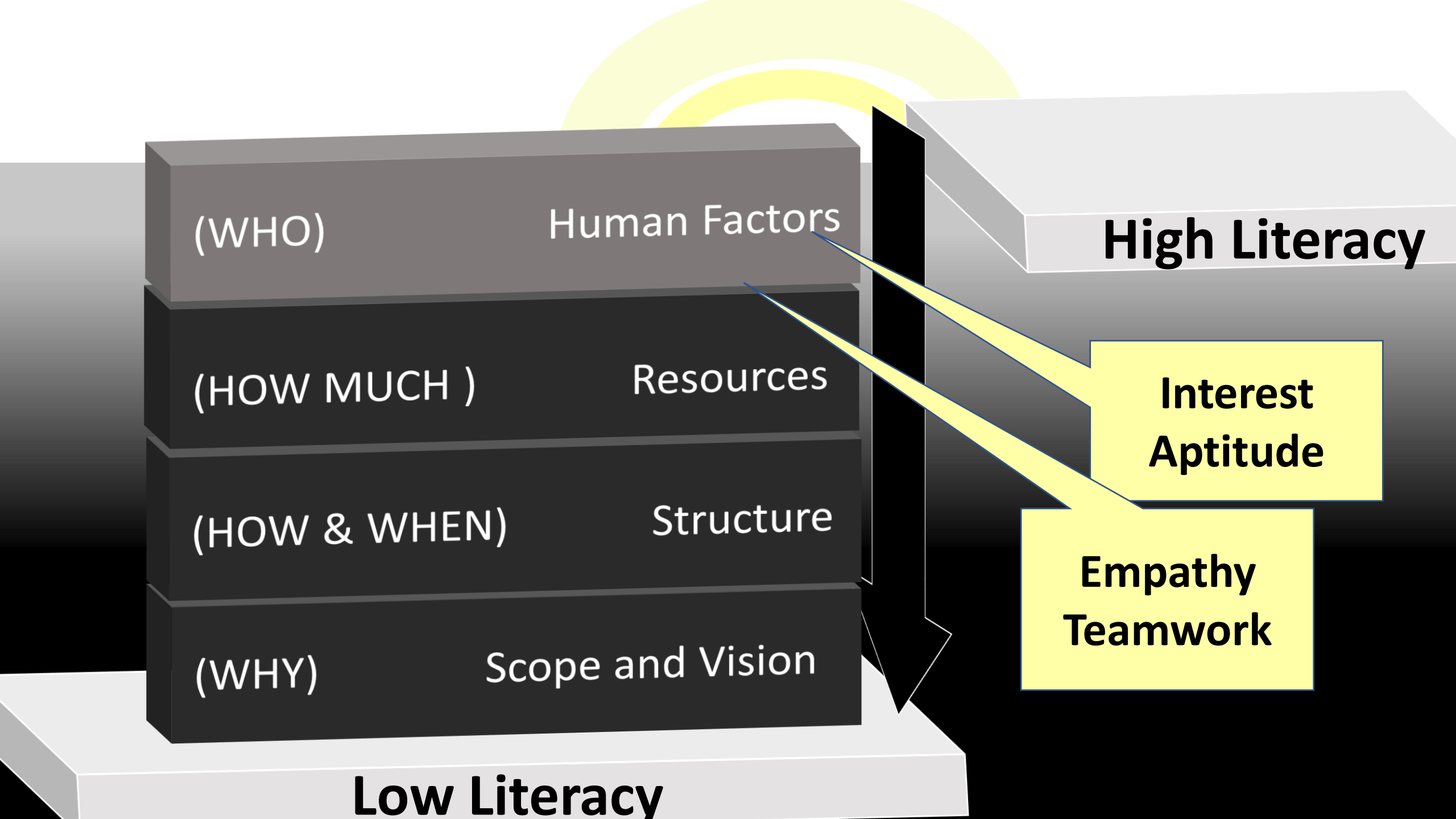
Identify

Aware

Data Science Orientation

Goal: Analytic Skills

Low
Data
Literacy



What will it take?

Is it realistic?

For every organization?

For every employee?



Leaders Overestimate Current Levels of Literacy

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

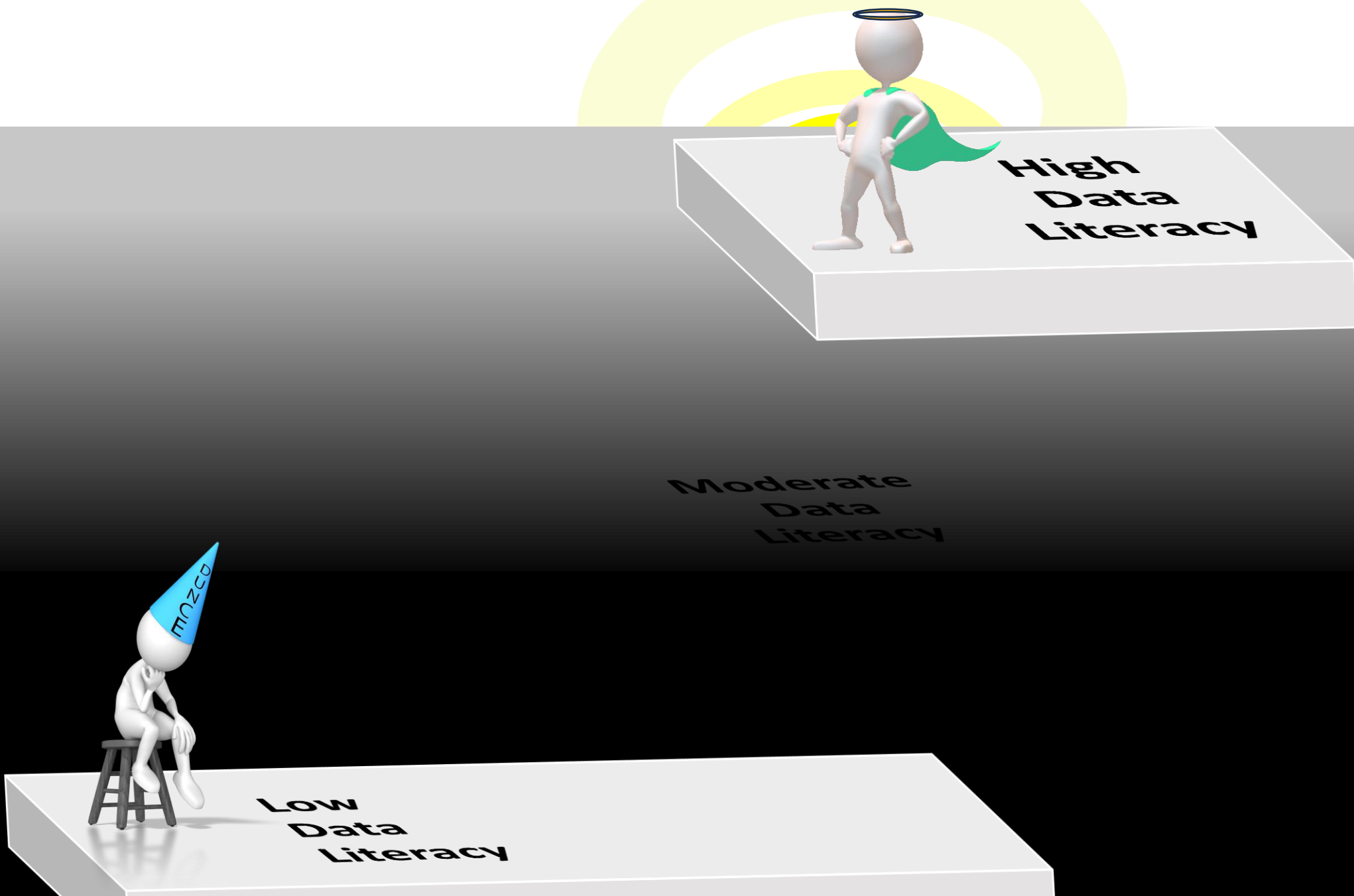
Recent studies find that only **10-20%** of employees are confident in their data skills



FORBES: The Problems with Data Literacy

Assuming data illiteracy is the reason companies fail to realize value from data creates a toxic divide between data producers and consumers.





High
Data
Literacy

Moderate
Data
Literacy

Low
Data
Literacy

INZCO

What is Typical

One third of Americans don't know that a quarter of a pie is the same as 25%



54% admit they simply smile and nod rather than reveal they don't understand data or statistics

★ ABC BANK Statement Ending 09/21/2021 Page 2 of 2

Look over all transactions

ABC RELATIONSHIP CHECKING XXXXXXXX1284 (continued)

Primary Checking Paycheck

Account Activity	Debits	Credits	Balance
09/10/2021 Signature POS Debit 09/08 GIANT FOOD I	\$78.22		6,806.09
09/10/2021 L A FITNESS	\$15.38		6,790.71
09/11/2021 FT&T MOBILITY ONLINE PMT	\$100.30		6,690.41
09/14/2021 DEPOSIT		\$500.48	7,190.89
09/14/2021 DIRECT DEP		\$2,576.34	9,767.23
09/14/2021 Signature POS Debit 09/13 MD GIANT FOOD	\$15.40		9,751.83
09/17/2021 ATM Withdrawal 09/15 WV INWOOD	\$350.00		9,401.83
09/17/2021 Signature POS Debit 09/16 MD GIANT FOOD	\$12.48		9,389.35
09/17/2021 Signature POS Debit 09/15 MD GIANT FOOD	\$35.80		9,353.55
09/18/2021 THE HOME DEPOT ONLINE PMT POS	\$8.35		9,345.20
09/18/2021 60RETIRE 0503R3030	\$528.12		8,817.08
09/20/2021 373LA@71557195	\$489.57		8,327.51
09/21/2021 Ending Balance			8,327.51

Daily Balances

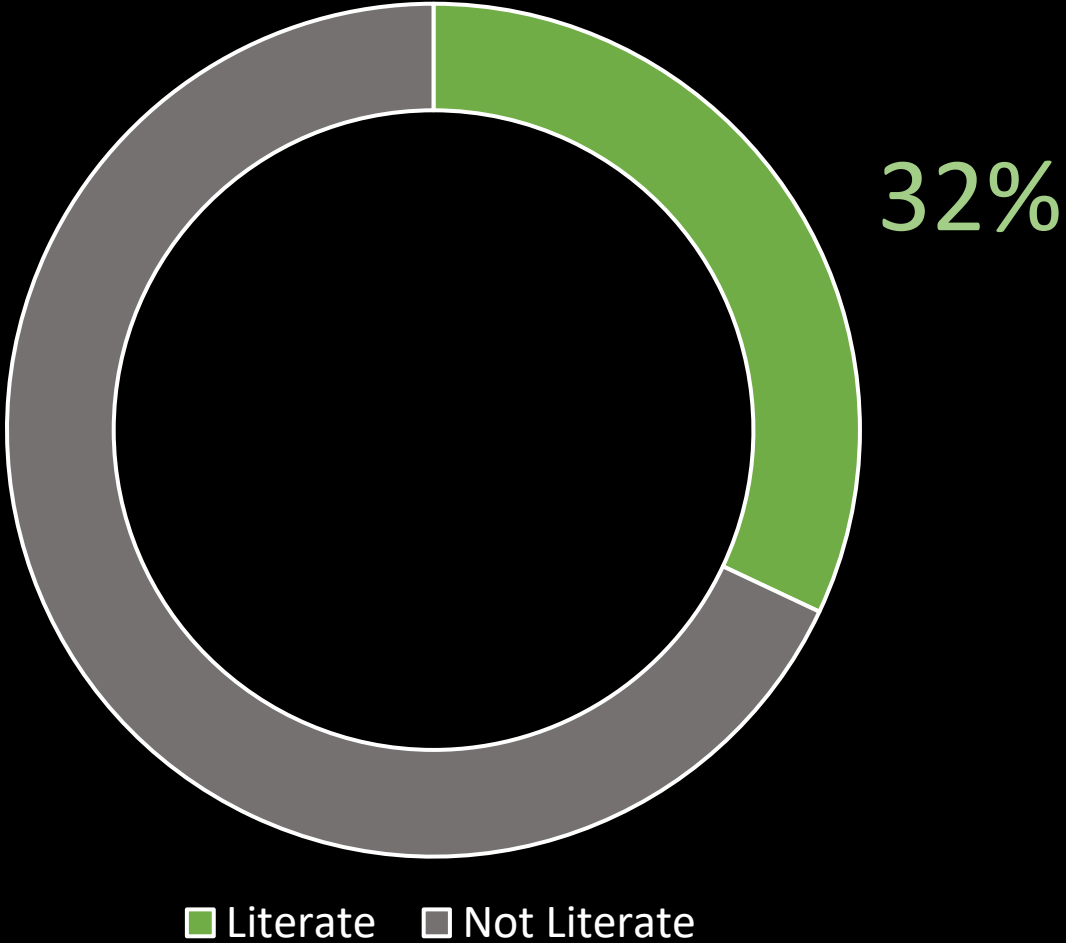
Date	Amount	Date	Amount	Date	Amount
09/04/2021	19,120.43	09/10/2021	6,790.71	09/18/2021	8,817.08
09/05/2021	7,017.64	09/11/2021	6,690.41	09/20/2021	8,327.51
09/06/2021	6,562.32	09/14/2021	9,751.83		
09/07/2021	7,039.31	09/17/2021	9,353.55		

Overdraft and Returned Item Fees Watch for unexpected fees

	Total for this period	Total year-to-date

22% reveal they can't understand everyday numeric information, like bank statements

Percent of C-Suite Executives Considered Data Literate



OFFSIDES®

David Jacobson

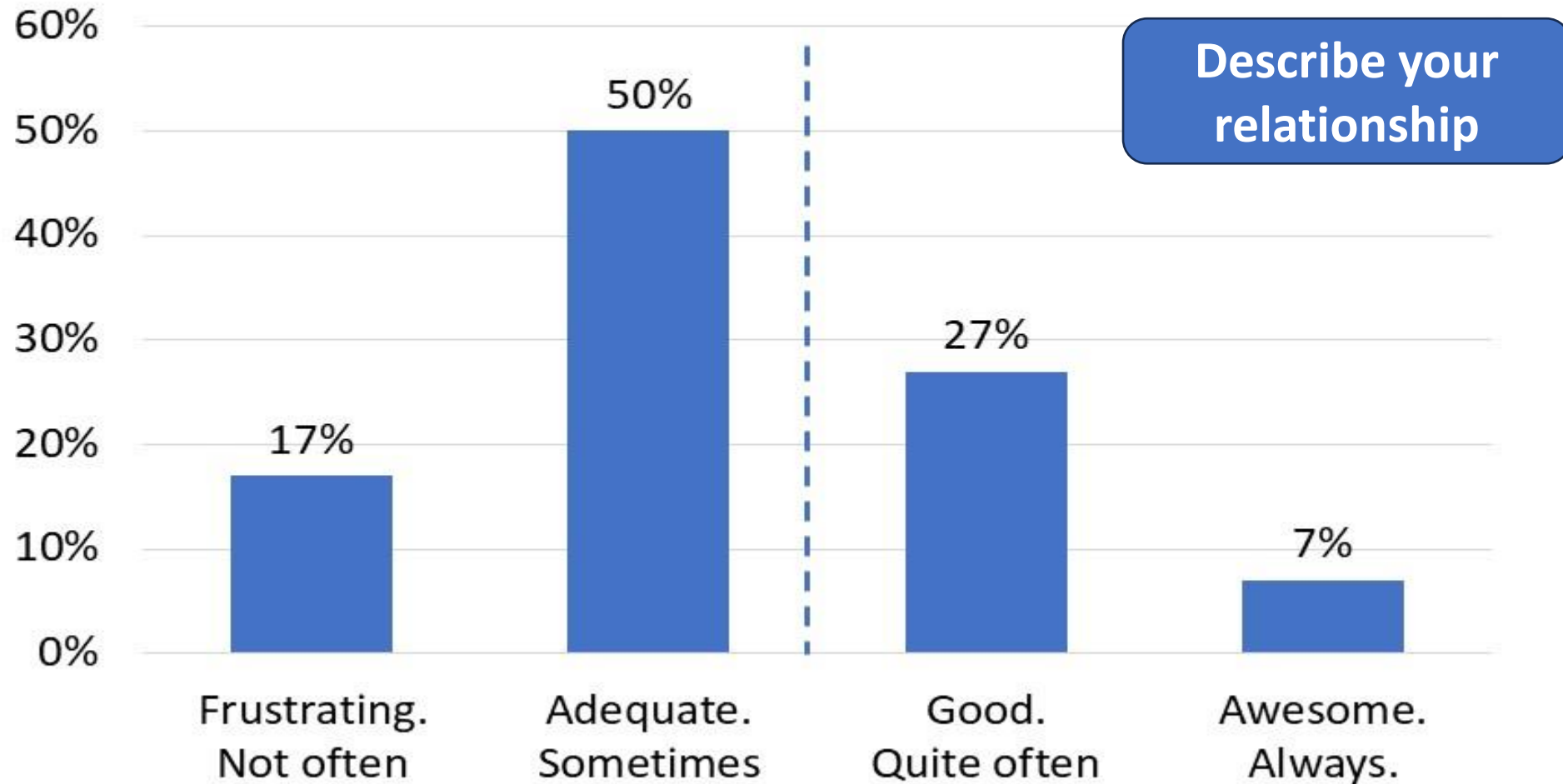


DRABBLE®

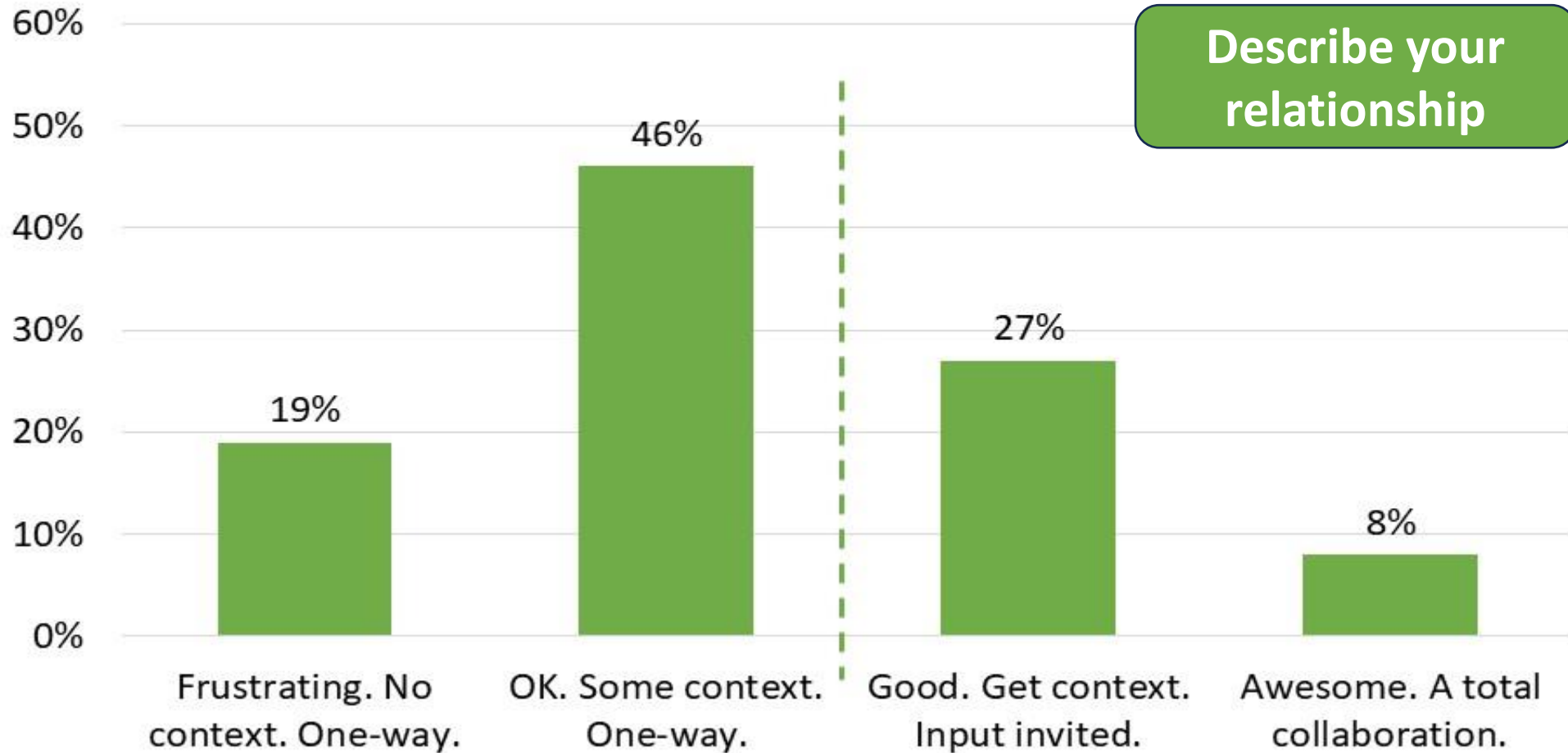
Kevin Faqar

The typical situation
in three simple graphs

**Business Professionals:
How often you get (and understand)
the EXACT answers you need?**

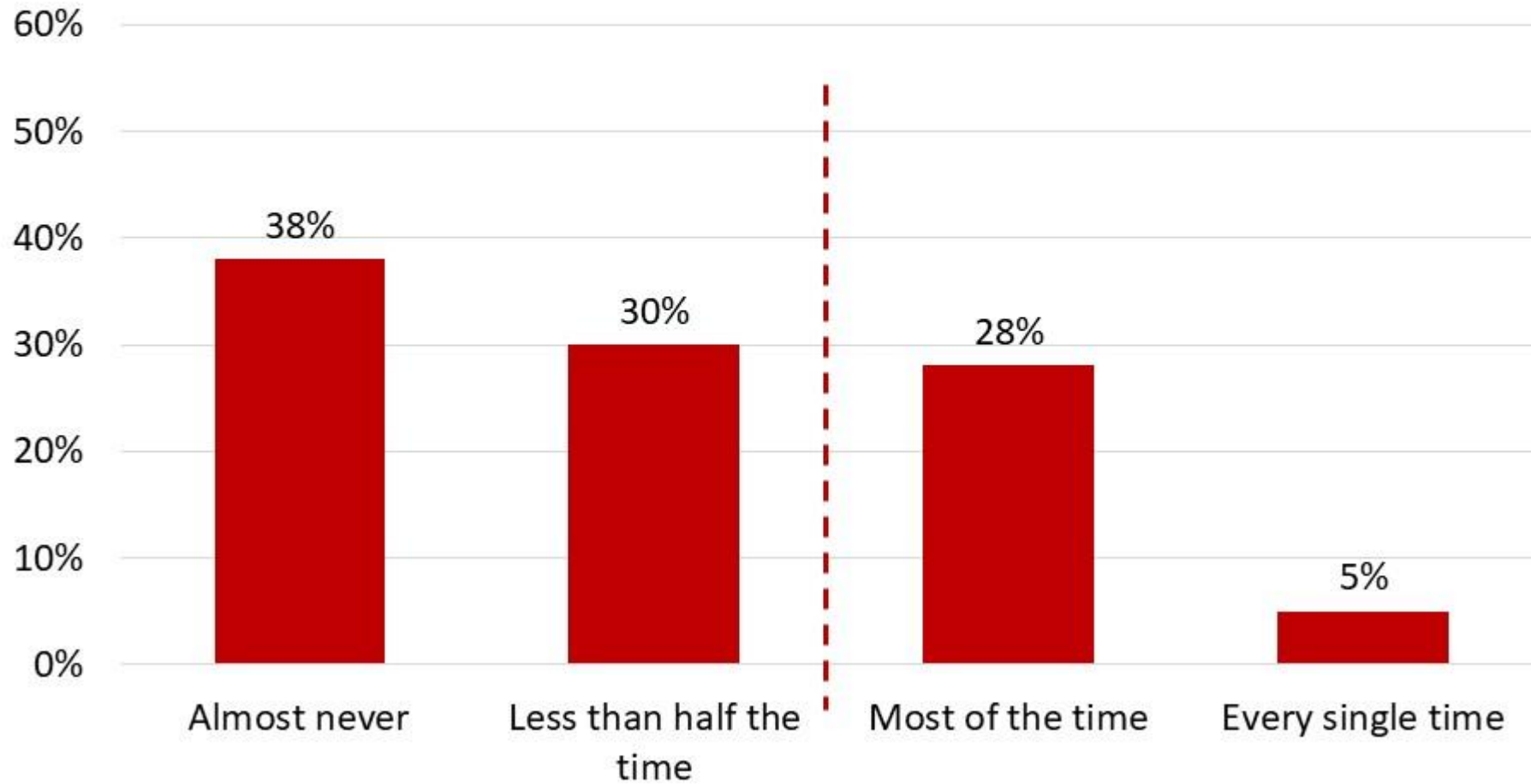


Data Professionals:
Do they share context?
Is it a one-way transaction or do they invite input?



N=30

When you get a new analytic request.....
**How often are you able to provide the EXACT answer they want,
the first time, with no rework?**



N=40

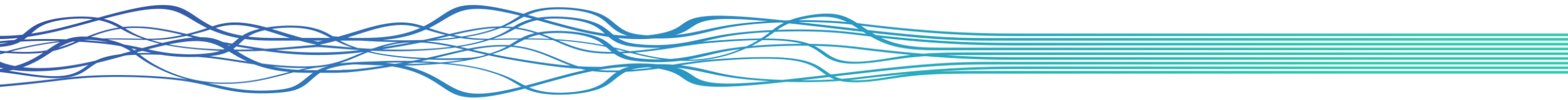
What do the experts say?

•**85%** of big data projects fail.

•**87%** of data science projects never make it into production

•**Only 20%** of analytics insights will deliver business outcomes through 2022

•**Only 50%** of business decisions are made using data



Given our challenges....
Is literacy training enough?

Let's look at root causes....

Let's start with the obvious.....

Business Leaders

ESTJ

Personality

Extroverted
obServant
Thinking
Judging



Data Scientists

Personality

Introverted
iNtuitive
Thinking
Prospecting

INTP



Warning:
This webinar contains
stereotypes

.....attract different types

Let's start with the obvious.....

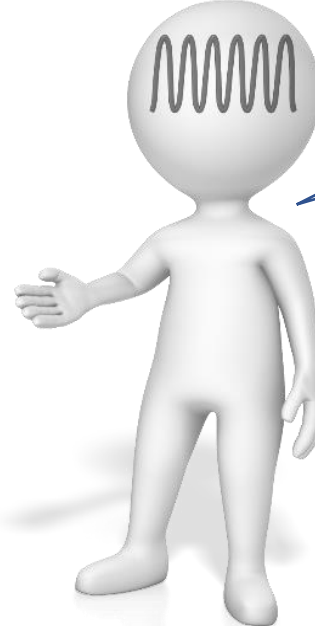
\$\$ (\$\$) EBITDA P:E
NET REVENUE KPI



Business Leaders

$$\sigma = \sqrt{\frac{\sum(x_i - \mu)^2}{N}}$$

p < .001. R²



Data Scientists

.....speak different languages





analytic-**translator**.com

There is a good reason for each style



Does your product improve employee performance?



Yes.

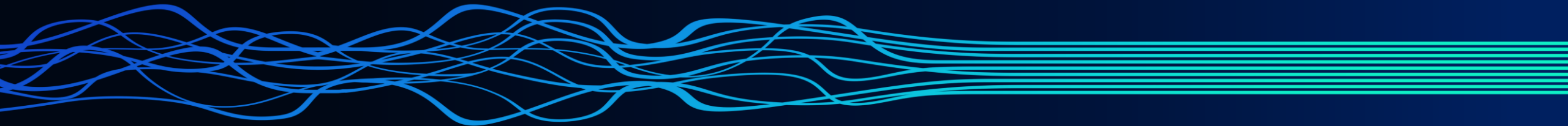
Next question.

Our analysis controlled for demographics, tenure, previous performance, location and job type. And we did a time series analysis removing seasonality, transforming the outcome into a binomial, showing that participants had significantly higher likelihood of improvement at a P-value of 0.02.



What we are up against

1. Big Bang meets Mad Men (personality/style)



.....trained in very different ways

Trained to be clear and action oriented:

Differentiators
Opportunities
Decisions
Pivots
Actions for success.



Business Leaders

Not trained

Advanced statistics
Communication skills

Trained to formally doubt results:

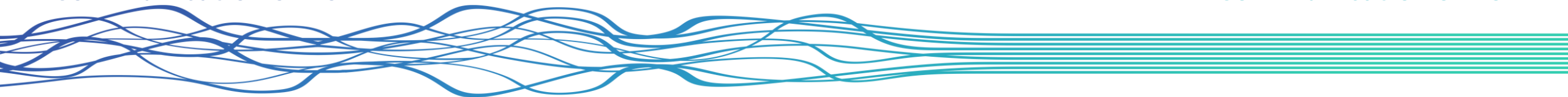
Reasons you may be wrong
Quantifying likelihood of error
Limitations
Uncertainties
Potential bias.



Data Scientists

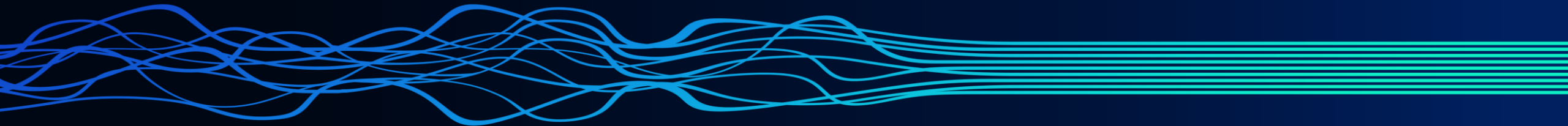
Not trained

Business management
Communication skills



What we are up against

1. Big Bang meets Mad Men
2. Doubt versus Certainty



.....different values

To beat the competition:

Leverage any advantage
Highlight most positive
Stretch as far as you can
Leave out negatives
Claim what you can
Strike while it's hot.

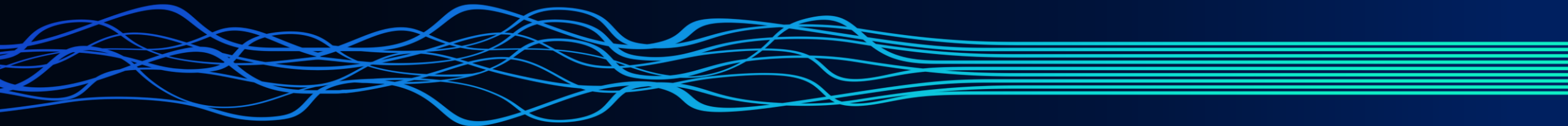


To be correct:

Be cautious
Be factual
Don't embellish
Highlight possible limitations
Admit what you don't know
Take the necessary time.

What we are up against

1. Big Bang meets Mad Men
2. Models and Marketing
3. Significance and Sales (Goals)



..... Different preferences (how people will hear us)

Want to deliver results:

Simple
Clear
Understandable
Indisputable
Convincing.



So clear it
needs no
explanation

Business Leaders

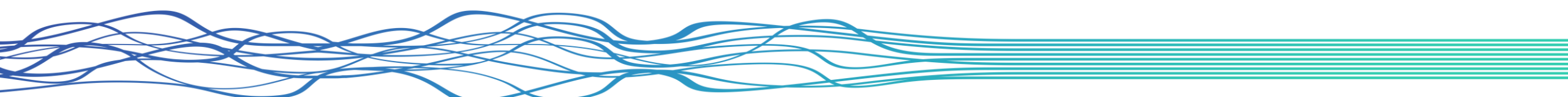
Want people to understand:

Complex possibilities
Something new and different
How interesting this is
That this is unique
That we used advanced techniques.



So interesting
everyone wants
an explanation

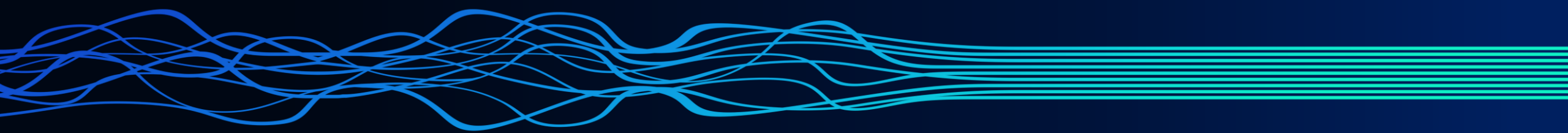
Data Scientists



Amazing finding!



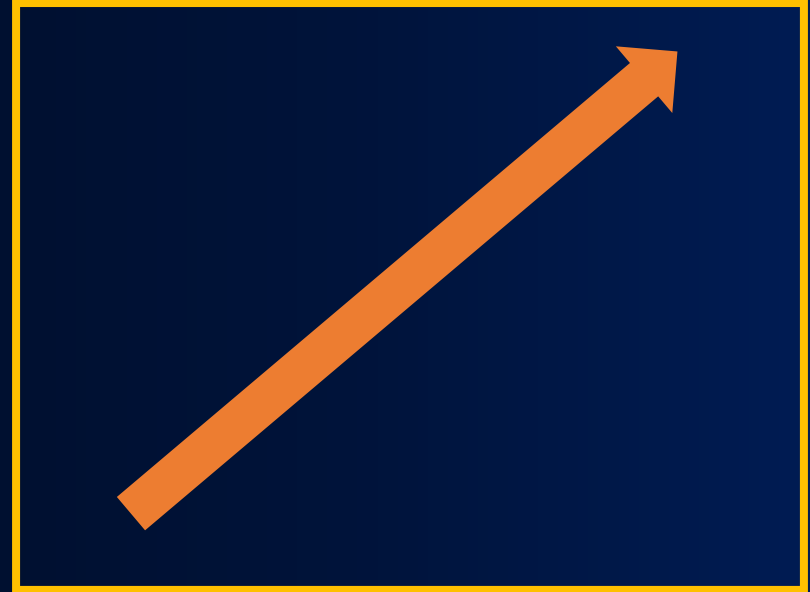
We shifted the whole distribution!!



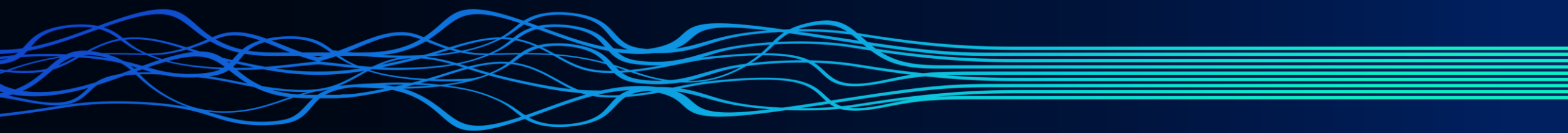
What we are up against

1. Big Bang meets Mad Men
2. Models and Marketing
3. Significance and Sales
4. Revelation or Reduction

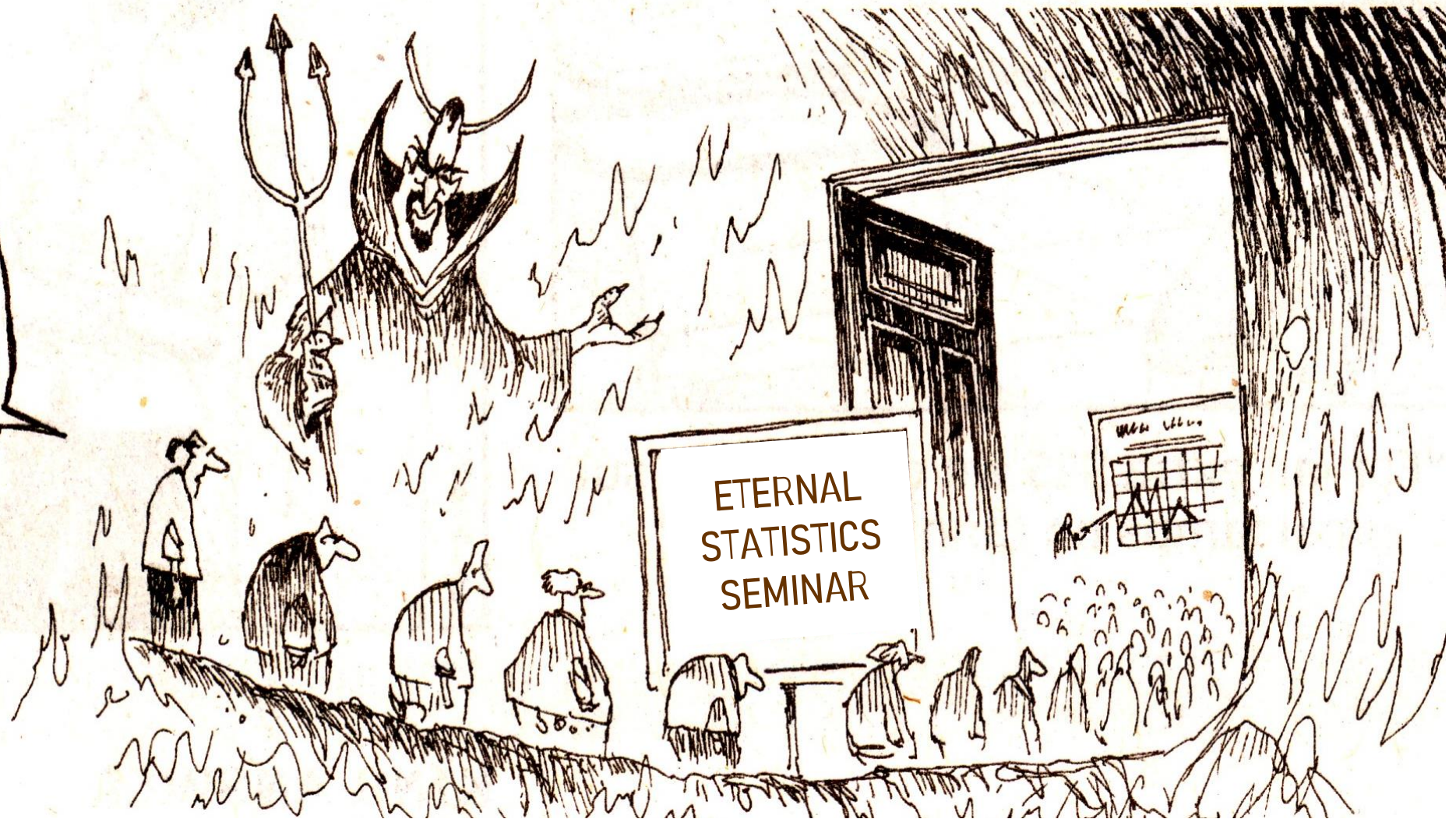
Don't make it complicated!!!!



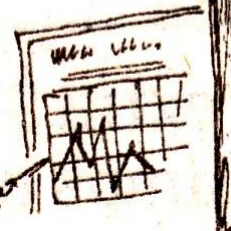
"Just give me one line that goes up and to the right. That's what tells people the result is good."



OH, MAN...
IT'S EVEN
WORSE
THAN I
THOUGHT



ETERNAL
STATISTICS
SEMINAR



..... Domains of comfort

Adults are used to being competent:

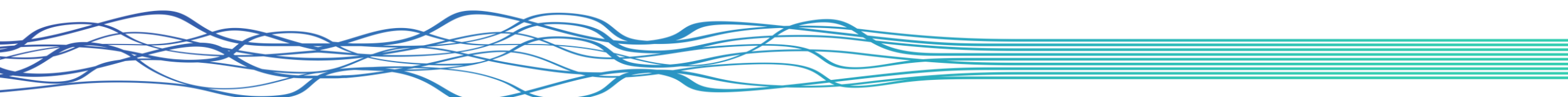


Non-data types

We often forget what others know:

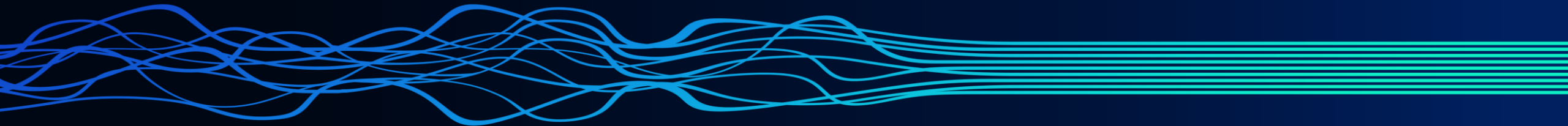


Data Scientists



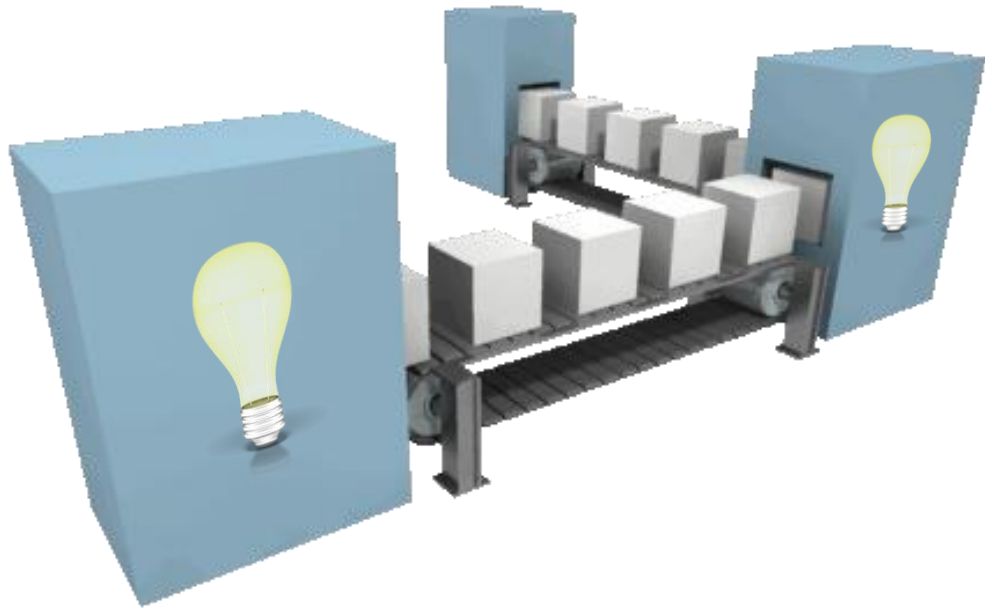
What we are up against

1. Big Bang meets Mad Men
2. Models and Marketing
3. Significance and Sales
4. Revelation or Reduction
5. Comfort and confidence



.....Orientation

Scalability and profitability:

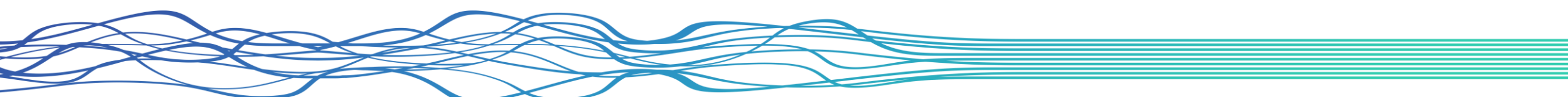


Business Leaders

New ideas, new solutions:

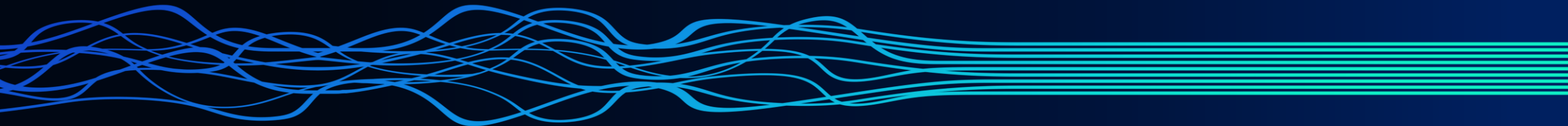


Data Scientists



What we are up against

- | | |
|----------------------------|--------------------|
| 1. Big Bang meets Mad Men | Personality, style |
| 2. Models and Marketing | Training |
| 3. Significance and Sales | Goals |
| 4. Revelation or Reduction | Preferences |
| 5. Comfort and Confidence | Domains of comfort |
| 6. Puzzles or Profits | Orientation |



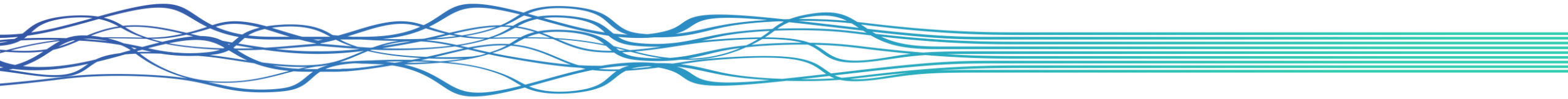
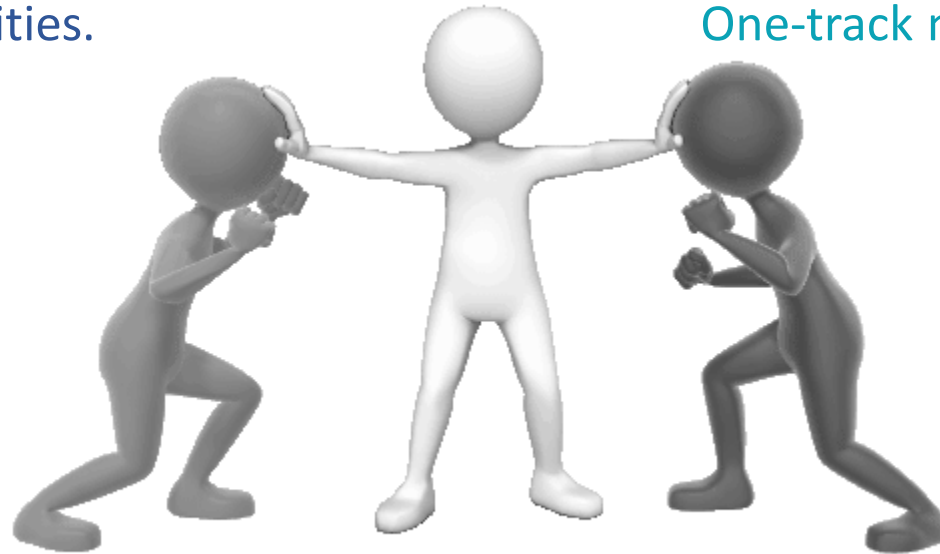
Tension... that builds

Business Leaders May Perceive Analysts:

Uncertain/ wishy-washy
Move too slowly
Make things too complicated
Discount business needs
Get distracted from priorities.

Analysts May Perceive Leaders:

Over-confident
Decide too fast
Over-simplify
Overlook methodological challenges
One-track minded.

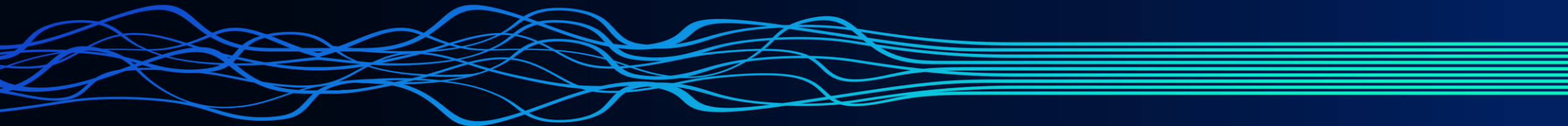


What now?

Given these differences.....

Is the solution really to educate
ONE of the professional groups (business)

to more informed about the data used by the
other? (analysts)



***During World War II
a team of weather forecasters
offered their resignations
after it was proven
that their predictions
were no more accurate
than random chance.....***

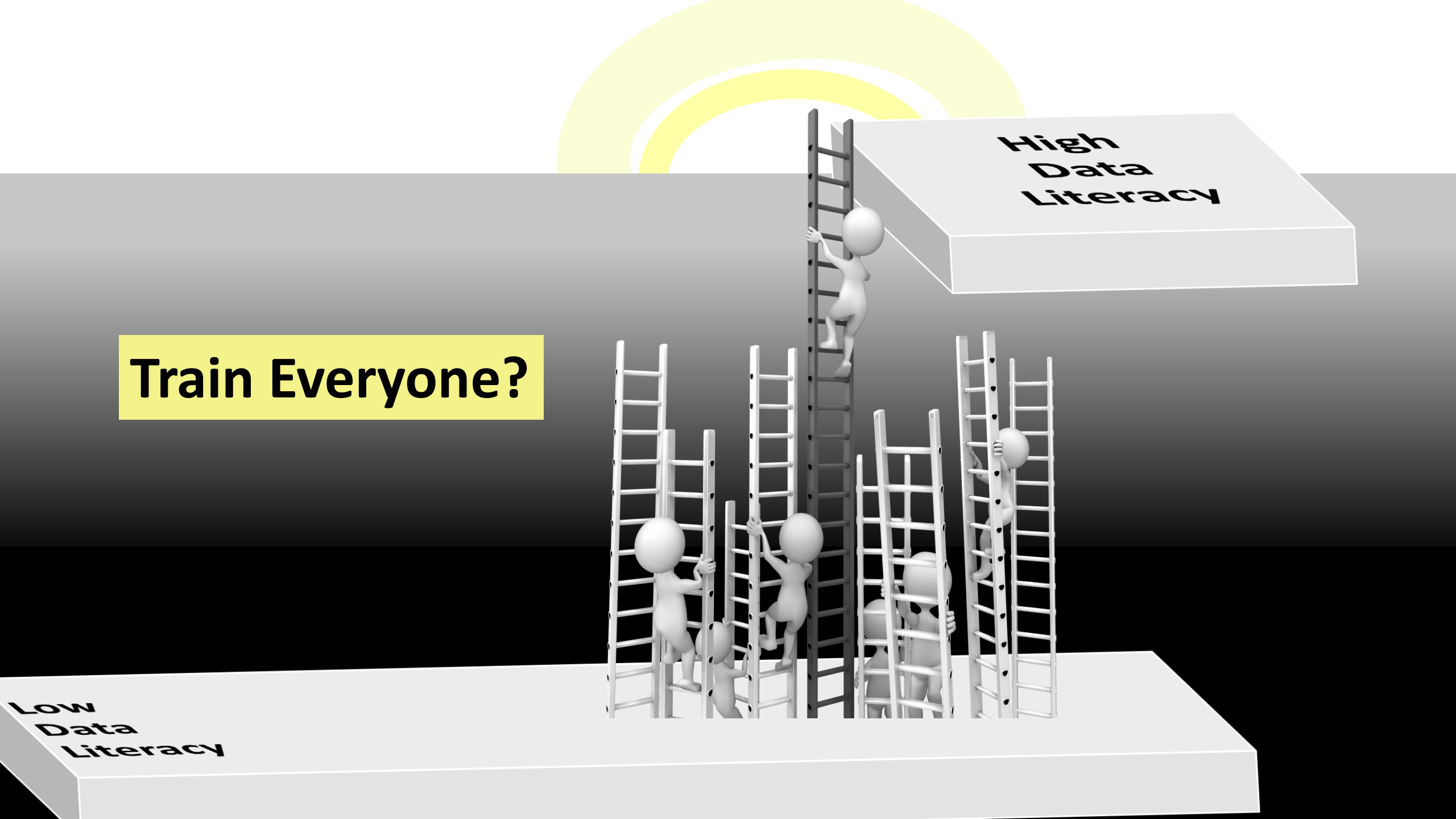


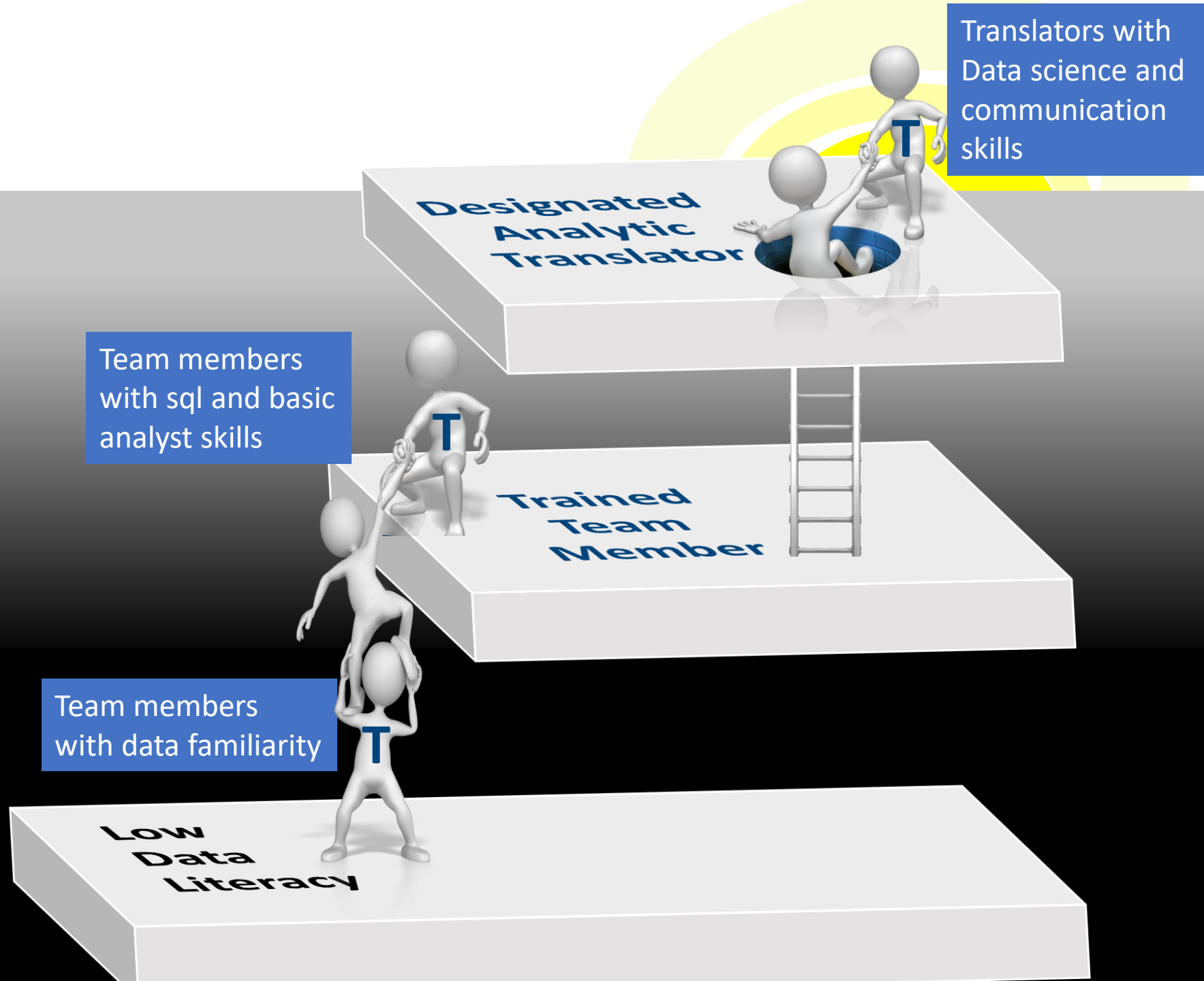
The response ?

*“The Commanding General
is well aware that
the forecasts are no good.*

*However,
he needs them
for planning purposes”*

Train Everyone?





Translators with Data science and communication skills

Team members with sql and basic analyst skills

Team members with data familiarity

Low Data Literacy

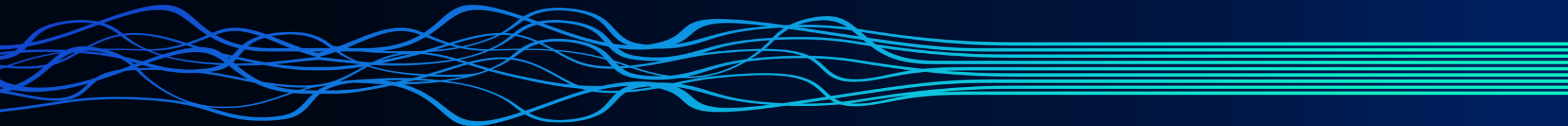
Trained Team Member

Designated Analytic Translator

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

What does a translator do?

1. Speaks both languages fluently
2. Native in both domains
 - Familiar and comfortable with goals, biases, approach
3. Expertise in communication
 - Questions, listening skills, clarification
4. Dedicated to converting data into maximum business value
5. Authentic appreciation and empathy for both teams



BECOME AN ANALYTIC TRANSLATOR

Make sense of data in business.
Make allies of analysts and business leaders.

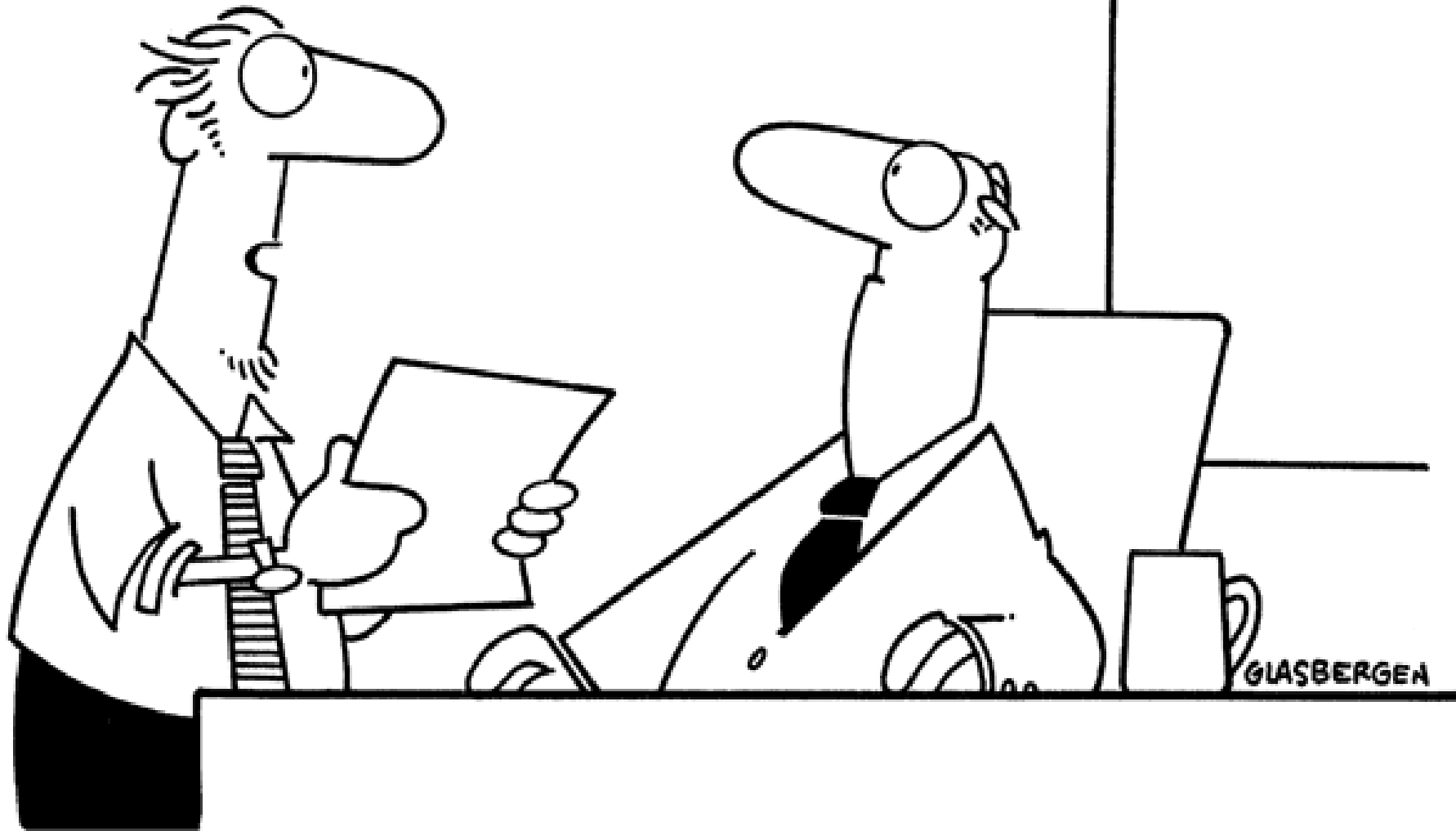
WENDY D. LYNCH, PhD

Get to **What Matters**

Tools to Transform Conversations at Work



**Wendy D. Lynch
Clydette de Groot**



**Our biggest challenge is the time zone difference
For the analytic team in Oregon, it's 2:45.
but at C-Suite headquarters it's 1987**

Questions?

Comments?

Wendy@analytic-translator.com

