NASCEE Learning Event
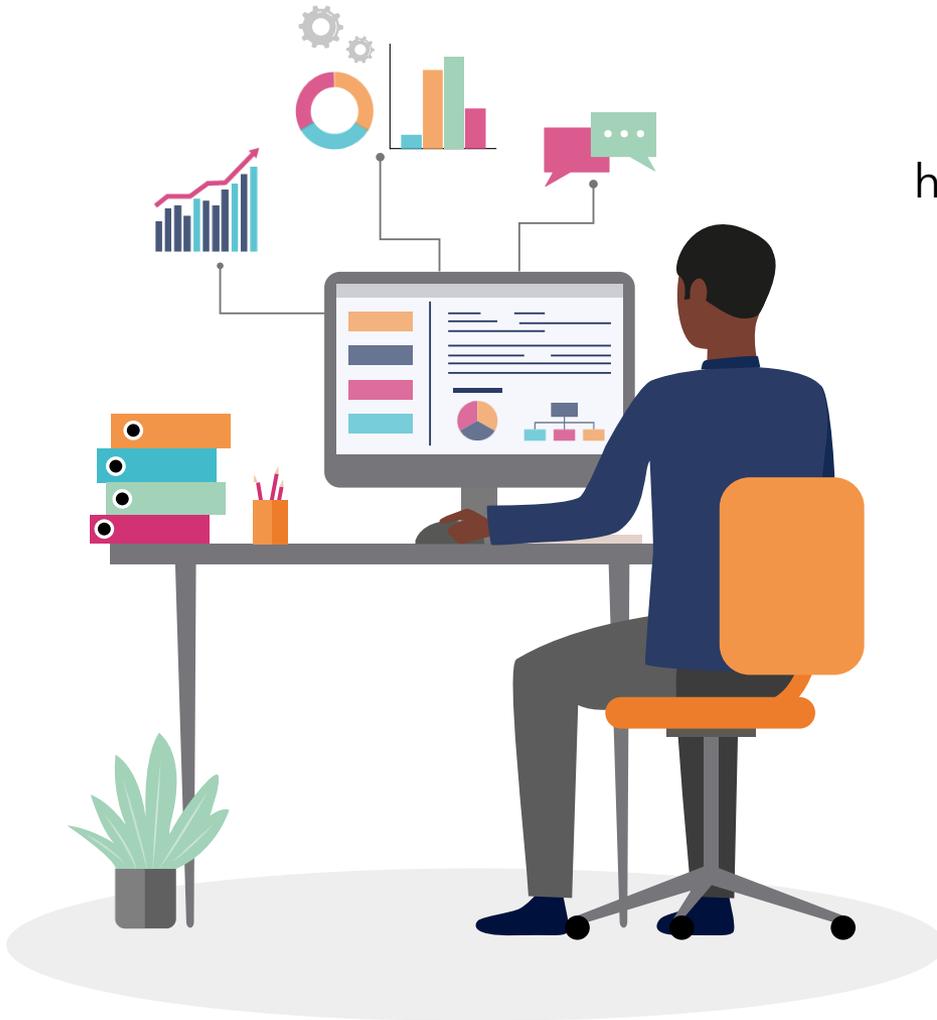
Data communication: to help build data communication skills to improve how you communicate to stakeholders

18 April 2023

data INNOVATORS GROUP

NASCEE
National Association of Social Change Entities in Education

Data storytelling through data

There is a story in your data

The challenge with data-driven decision-making is the inability to tell the story behind the data
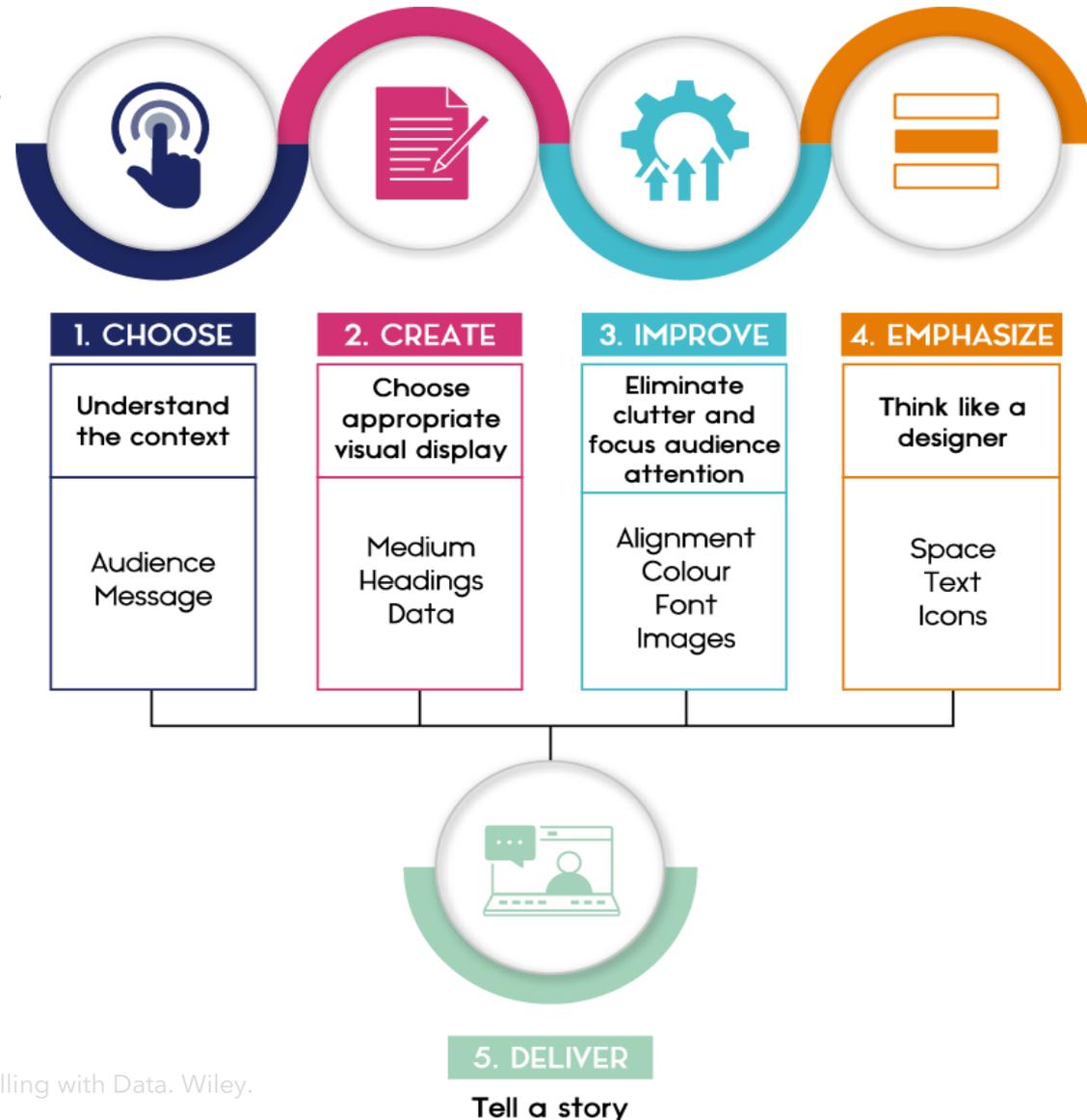
We need to shift from simply showing data to storytelling with data

We need to incorporate data and storytelling for the messaging to resonate with audience both at intellectual and emotional level in order to drive impact

Data Artistry.

Incorporating data and storytelling for better messaging
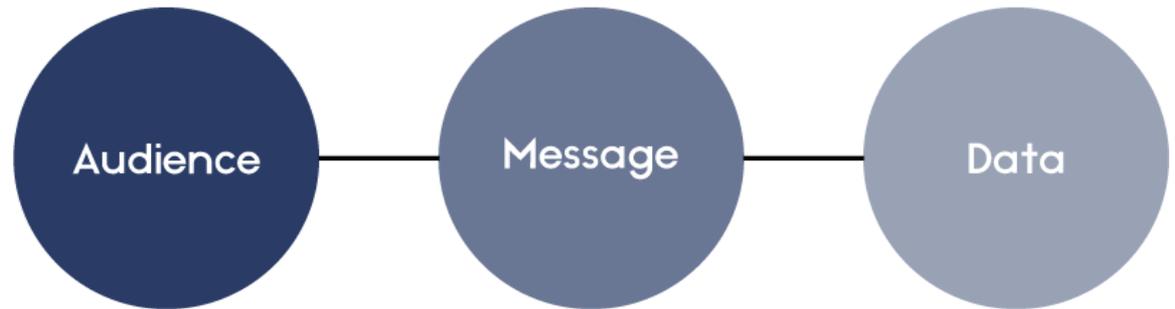
CCIED steps to better communicate visually with data.

1. CHOOSE	2. CREATE	3. IMPROVE	4. EMPHASIZE
Understand the context	Choose appropriate visual display	Eliminate clutter and focus audience attention	Think like a designer
Audience Message	Medium Headings Data	Alignment Colour Font Images	Space Text Icons

5. DELIVER

Tell a story

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Step 1 Choose: Understand context

Step 1 Choose: Understand context

Who (Audience)

- Understand who your **audience** is to better position communication

- Then formulate communication that will better meet their need

- Consider the relationship you have with your audience-*is it a new (need to establish credibility or old relationship (credibility already established)*

What (Message)

- What do you need your audience to know or do?

- Your communication should lead people to **understanding** and/or **action**

How (Data)

- Focus on the data and ask the question: *What data is available that will help make my point?*

- Data becomes supporting evidence to the story

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Step 1 Choose: Who (audience)

Clearly define your audience

CEO

Funder

Just saying internal or external stakeholders is not enough. Be specific in defining the role/s of your audience/s.

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Step 1 Choose: Who (audience)

In defining your audience, you must also consider what they want from data. There are five main types of audiences.

1. **Novice:** first exposure to the subject but does not want oversimplification

2. **Generalist:** aware of the topic but looking for an overview and major themes

3. **Managerial:** requires in-depth actionable understanding

4. **Expert:** requires exploration and discovery and less detailed story

5. **Executive:** only has time to glean over important conclusions

Source: Jim Stikileather

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Step 1 Choose: What (message)

The **story-spine** approach is a style of storytelling that guides a writer to arrange their piece, so that the problem statement and solution are clear, as well as the role that data played in the process.

The Story Spine

Once upon a time...
Set the stage

Every day...
Describe the hero's daily routine

But one day...
Something that upsets your hero's routine

Set a strong structure for your story and add in the details afterwards.

Because of that...
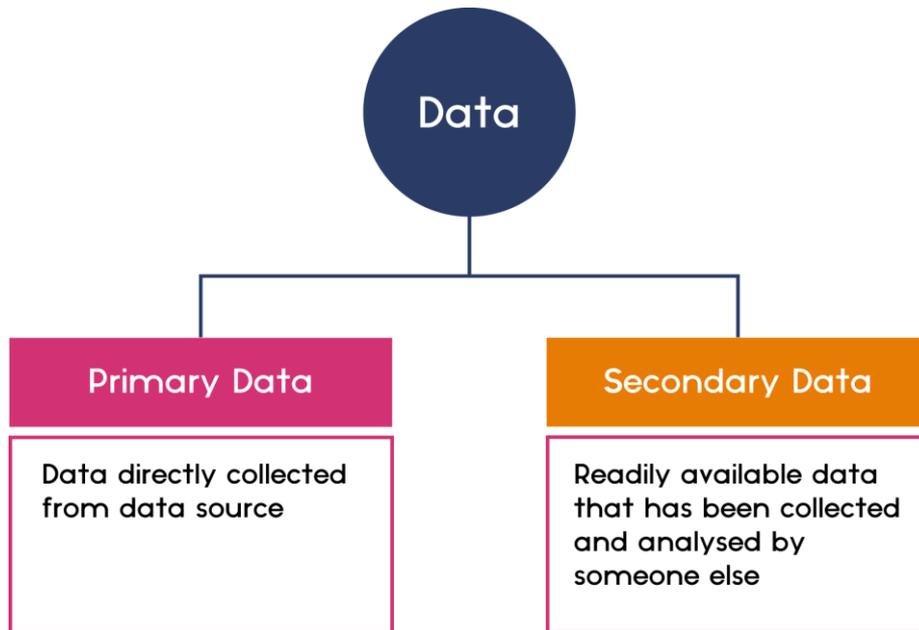How the hero gets back on track

And ever since...
Share the new normal

Until finally...
The climax of the story

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Step 1 Choose: How (data)

Data

Primary Data

Data directly collected from data source

Secondary Data

Readily available data that has been collected and analysed by someone else

You can use either to communicate your audience need

Clearly defining your audience and your message is key in deciding which available data to use to best communicate your point.

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Step 2 Create: Choose appropriate visual display

2. CREATE

Medium — Headings — Data

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Step 2 Create: Medium

How to make it easy for the audience to read

PowerPoint	PIKTOCHART	VISME	Canva
✓ Link datasets	✓ Templates	✓ Templates	✓ Social media Templates
✓ Easy to navigate	✓ Online interaction	✓ Online interaction	✓ Additional chart, photo, shape, and icon tools
✓ Design tools	✓ Additional chart, photo, shape, and icon tools	✓ Additional chart, photo, shape, and icon tools	✓ User-friendly
	✓ User-friendly	✓ User-friendly	

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Step 2 Create: Headings

Main heading →

Anatomy of a primary
SCHOOL TEACHER

What makes a good primary school teacher? Four in five are women and about a third are 30 or under, but what character traits do they share? Here's a look at the anatomy of a primary teacher...

ACADEMIC BRAIN

The vast majority of teachers – 96 per cent – are educated to degree level or higher. Most go into the role after obtaining a PGCE on top of an undergraduate degree.

EXTRA EYES

Every class contains at least one little scamp who fancies their chances at misbehaving the moment their teacher's back is turned. Eyes in the back of their heads are, therefore, a must.

BIG VOICE

Teachers need to be able to command a class full of pupils. No-one wants to hear their terrifying 'telling off voice', but they've got one and aren't afraid to use it.

BIG HEART

Teachers need to have a passion for their profession and a desire to help children from any walk of life to overcome their learning challenges.

STRONG IMMUNE SYSTEM

Primary teachers are exposed to every little cough and sniffle from every child, including the one with a dubious grasp of hand washing. A strong immune system is a must to cope.

CLEAR HANDWRITING

Teachers need clear handwriting – even on whiteboards and interactive screens where mere mortals see their words reduced to indecipherable scrawl.

CREATIVITY

← **Sub-heading**

How can you make grammar fun? A teacher needs creativity to come up with lessons that grab the attention and keep the subject matter engaging.

← **Text**

QUICK WITTED

It'd be embarrassing to be caught out by a clever student. Teachers need their own sums and spellings to be sharp to set a good example.

BROAD SHOULDERS

With precious parents who never accept their child is in the wrong or smarmy friends who moan about 'long holidays', teachers need to brush lots of things off.

STAMINA

Planning, preparing resources, marking...the working day does not finish when the school bell rings and teachers need the stamina to work long hours. Coffee and tea helps too.

STRONG KNEES

Crouching to talk to children in those impossibly-small chairs or swooping to clear up mess before an angry caretaker comes on the warpath arrives both require strong knees.

GOOD SHOES

Teachers are constantly on their feet and so a good pair of shoes is vital. The average teacher walks about 5,000 steps a day in their work, that's the Empire State Building staircase three times!
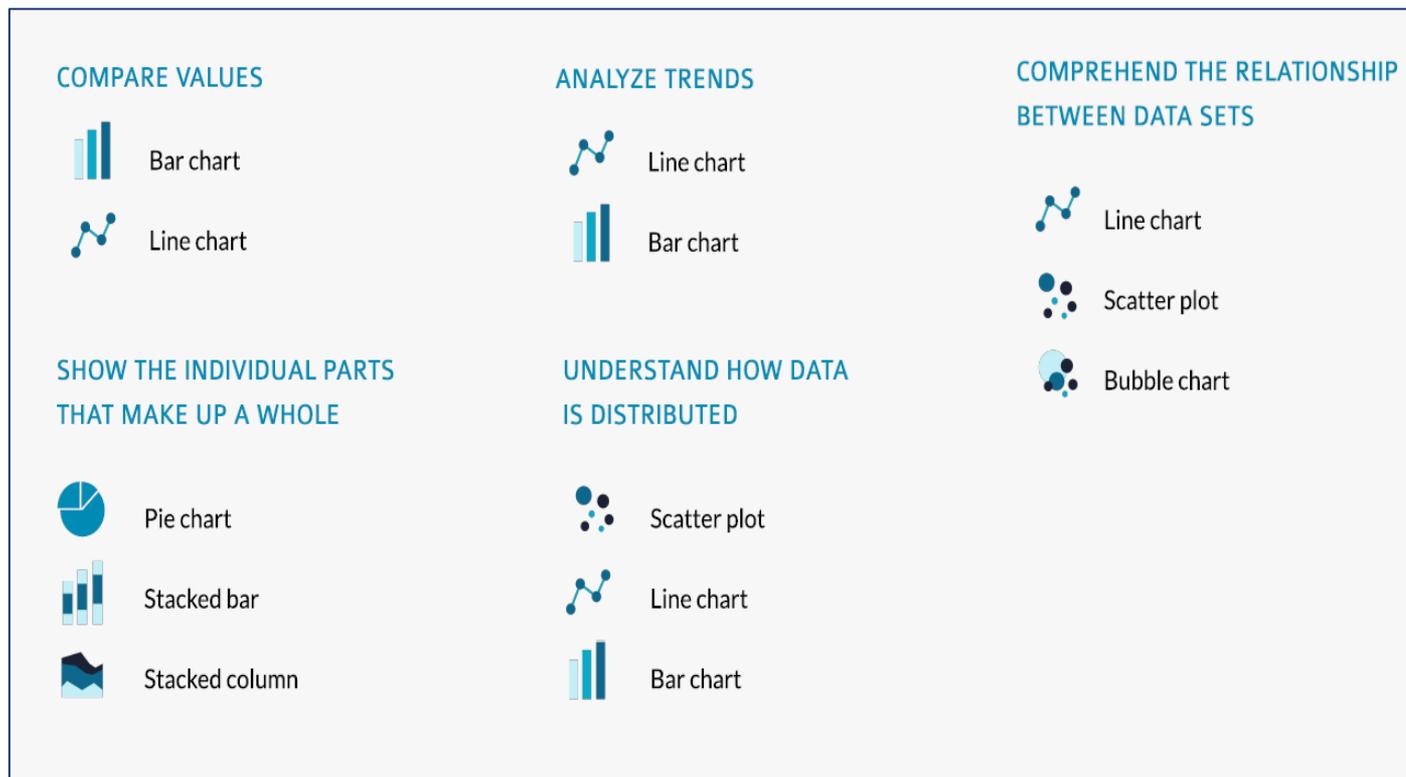
edustaff recruitment for schools

Brought to you by
www.edustaff.co.uk

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Step 2 Create: Data

There are different types of visuals to choose from depending on your communication need and how data can be presented to make it easy for the audience to read.

How best to present the data based on the need

COMPARE VALUES

Bar chart

Line chart

ANALYZE TRENDS

Line chart

Bar chart

COMPREHEND THE RELATIONSHIP BETWEEN DATA SETS

Line chart

Scatter plot

Bubble chart

SHOW THE INDIVIDUAL PARTS THAT MAKE UP A WHOLE

Pie chart

Stacked bar

Stacked column

UNDERSTAND HOW DATA IS DISTRIBUTED

Scatter plot

Line chart

Bar chart

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Step 3 Improve: Eliminate clutter and focus audience attention

3. IMPROVE

Alignment — Colour — Font/size — Images

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Step 3 Improve: Alignment

To ensure that your content lines up, use rulers or gridlines. This will help you precisely align and make your work cleaner.

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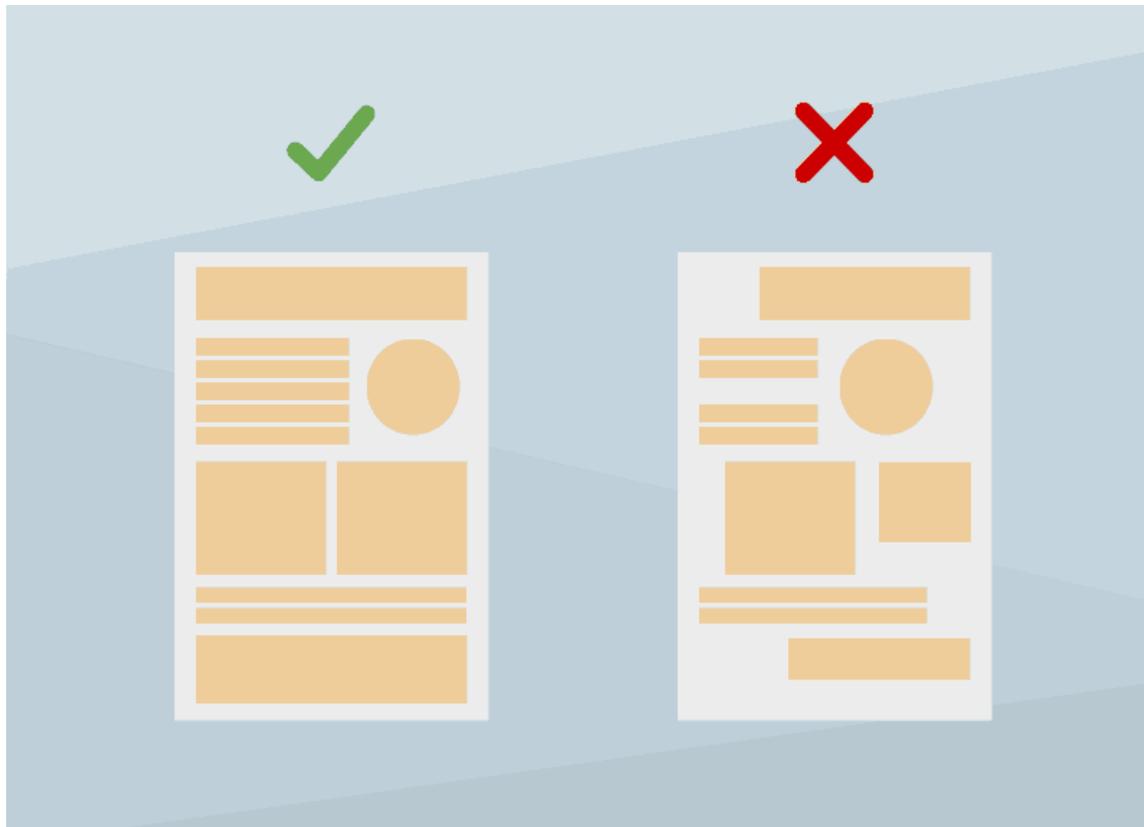
Step 3 Improve: Colour

Use colour to draw audience attention.
Tips on using colour:

1. Use it restrictively

Country Level Sales Rank Top 5 Drugs

Rainbow distribution in color indicates sales rank in
given country from #1 (red) to #10 or higher (dark purple)

Country	A	B	C	D	E
AUS	1	2	3	6	7
BRA	1	3	4	5	6
CAN	2	3	6	12	8
CHI	1	2	8	4	7
FRA	3	2	4	8	10
GER	3	1	6	5	4
IND	4	1	8	10	5
ITA	2	4	10	9	8
MEX	1	5	4	6	3
RUS	4	3	7	9	12
SPA	2	3	4	5	11
TUR	7	2	3	4	8
UK	1	2	3	6	7
US	1	2	4	3	5

Top 5 drugs: country-level sales rank

RANK	1	2	3	4	5+

COUNTRY I DRUG	A	B	C	D	E
Australia	1	2	3	6	7
Brazil	1	3	4	5	6
Canada	2	3	6	12	8
China	1	2	8	4	7
France	3	2	4	8	10
Germany	3	1	6	5	4
India	4	1	8	10	5
Italy	2	4	10	9	8
Mexico	1	5	4	6	3
Russia	4	3	7	9	12
Spain	2	3	4	5	11
Turkey	7	2	3	4	8
United Kingdom	1	2	3	6	7
United States	1	2	4	3	5

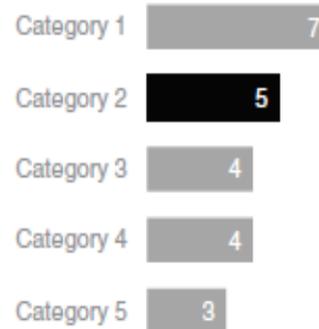Data Artistry.

Step 3 Improve: Colour

2. Use it consistently

3. Be thoughtful of tone the colour conveys (what emotion do you want to convey?)

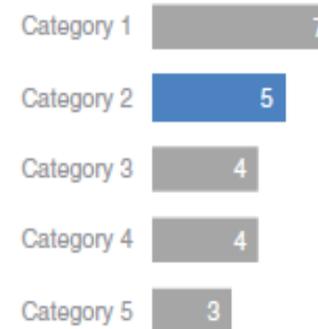4. Brand colours (use one of two brand appropriate colours)
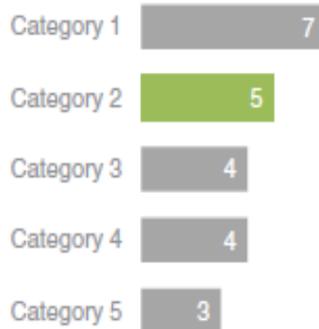
Use fonts, text sizes, and copy orientations that are clear and legible.

Avoid using italics, all caps, or decorative fonts. Stick to sans-serif fonts, such as Arial and Calibri.
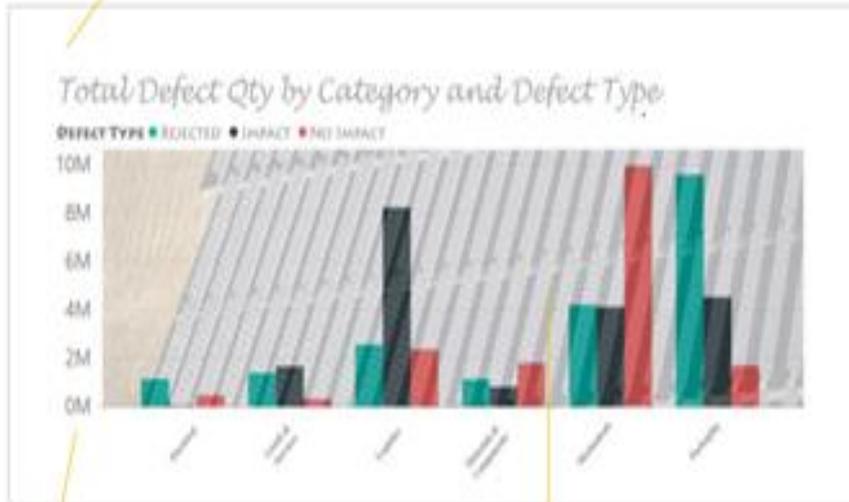
Limit the number of fonts and font sizes to three in your reports.

Avoid shape fills or backgrounds with patterns, as they can distract from the data.
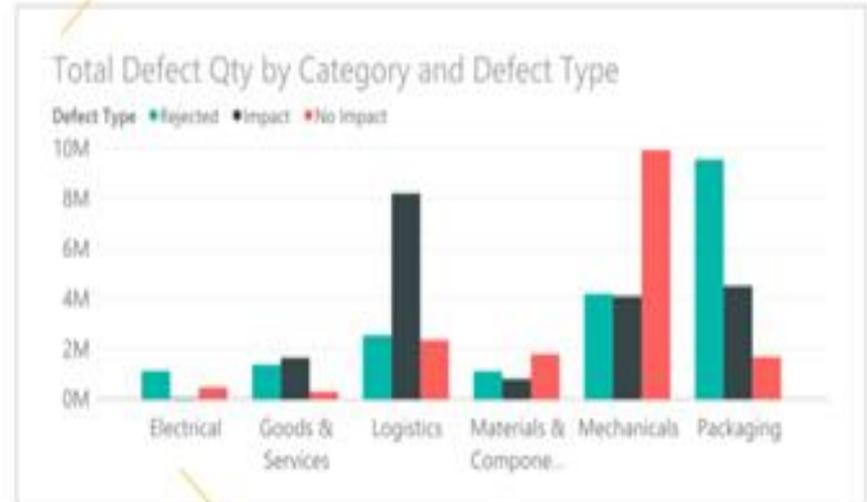
Lighter-weight fonts are good for chart elements. Heavier-weight fonts are good for titles.

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Step 3 Improve: Image

Thandi Smith

"The programme was a real eye-opener for me and I enjoyed every minute of it! I am looking forward to implementing everything I've learnt!"

High-res Photo
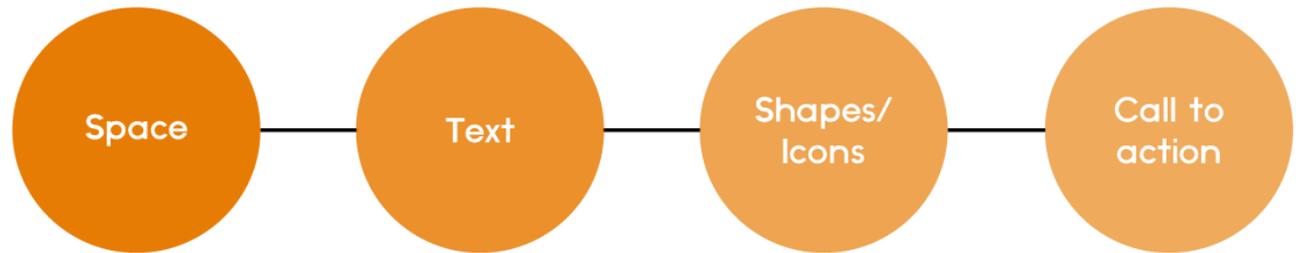
Transparent text box

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Step 4 Emphasize: Think like a designer

4. EMPHASIZE

Space — Text — Shapes/Icons — Call to action

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Step 4 Emphasize: Think like a designer

Having some basics of great design helps in creating great visuals.

Highlighting important stuff (text)	Eliminate distractions (space)	Accessibility (icons)

Text attributes:

- Bold, italics and underlying

- Upper and lower case

- Colour

- Size

Considerations to help identify potential distractions:

- Not all data is equally important

- When detail is not needed summarise

- Ask yourself: would eliminating this change anything?

Your data visual must be usable by audience of varying skills.

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Step 4 Emphasize: Text

You can highlight important things by increasing text SIZE, make it **bold,** or <u>underline.</u>

No preattentive attributes

What are we doing well? Great Products. These products are clearly the best in their class. Replacement parts are shipped when needed. You sent me gaskets without me having to ask. Problems are resolved promptly. Bev in the billing office was quick to resolve a billing issue I had. General customer service exceeds expectations. The account manager even called to check in after normal business hours.
You have a great company – keep up the good work!

Bold

What are we doing well? Great Products. These products are clearly the best in their class. Replacement parts are shipped when needed. You sent me gaskets without me having to ask. Problems are resolved promptly. Bev in the billing office was quick to resolve a billing issue I had. General customer service exceeds expectations. The account manager even called to check in after normal business hours.
You have a great company – keep up the good work!

Underline (added marks)

What are we doing well? Great Products. These products are clearly the best in their class. Replacement parts are shipped when needed. You sent me gaskets without me having to ask. Problems are resolved promptly. Bev in the billing office was quick to resolve a billing issue I had. General customer service exceeds expectations. The account manager even called to check in after normal business hours.
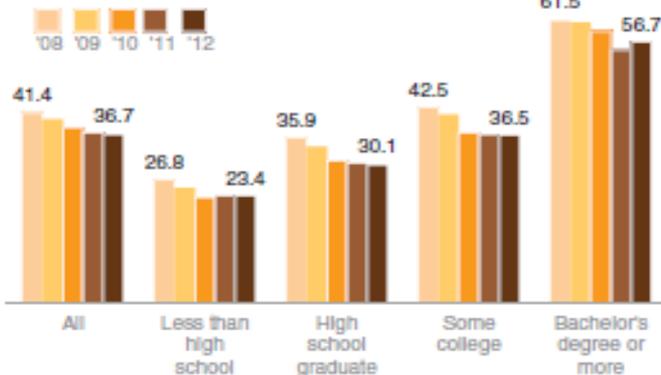<u>You have a great company – keep up the good work!</u>

Color

What are we doing well? Great Products. These products are clearly the best in their class. Replacement parts are shipped when needed. You sent me gaskets without me having to ask. Problems are resolved promptly. Bev in the billing office was quick to resolve a billing issue I had. General customer service exceeds expectations. The account manager even called to check in after normal business hours.
You have a great company – keep up the good work!

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Step 4 Emphasize: Space

Eliminate unnecessary information and make use of **white space** to focus your audience's attention.
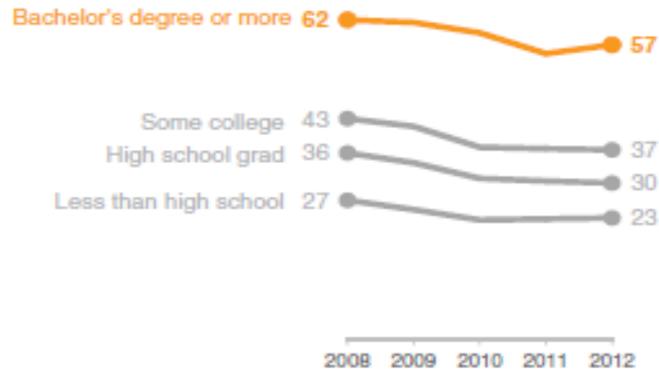
FIGURE 5.5 Before-and-after

By highlighting the important stuff and eliminating distractions, we've markedly improved this visual.

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Step 4 Emphasize: Icons

"The key factors inhibiting schools from acquiring computers are: absence of electricity, lack of funding, insufficient building, lack of available and trained staff, poor security"

The key factors inhibiting schools from acquiring computers are:

absence of electricity

lack of funding

insufficient building space

lack of available and trained staff

poor security

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Step 5 Create: Tell a story

5. DELIVER

Chronologically — Lead with an ending

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Step 5 Deliver: Tell the story

Narrative flow approaches

Chronologically

- Identify the problem
- Gather data to better understand it
- Analyse the data
- Based on the analysis recommend action

Lead with the ending

- Start with the call to action-what do you need your audience to know or do?
- Add the evidence that support it

This options works best when you've already have established trust with the audience

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Data storytelling model reflection questions

1. CHOOSE
Understand the context

- Is the audience clearly defined?
- Is the intended message clear?

2. CREATE
Choose appropriate visual display

- Is the communication need for the visual clear?

3. IMPROVE
Eliminate clutter and focus audience attention

- Is the audience easily directed to the key point/s?
- Is there information process flow?
- Is there information that adds no value?

4. EMPHASIZE
Think like a designer

- Are the important points highlighted?
- Is the visual aligned and structured?
- Is the message clear?

5. DELIVER
Tell a story

Is the visual capturing audience attention and evoking emotions?

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More about the
Data Artistry
Porgramme

Data Artistry.

Data Artistry overview: 2-day workshop

What will you gain from this programme?

Build the skills to:
- Identify decision-maker data needs
- Conceptualize how to present findings in a useful and understandable way
- Improve your reporting standards
- Create a compelling infographic/presentation
- Visualize qualitative and quantitative data
  - Use Icons, Photographic overlay, Flowcharts, Colour pallets, Layouts, Charts

Learn to communicate to a **Decision-makers**

Take home your **data viz creations**:
- Designed Infographic template
- Multiple infographic elements

Creative use of **new and familiar tools**: MS PowerPoint Piktochart Canva

Access exclusive **resources**:
- Online resource pack
- How to sheets

Enjoy the **Fun stuff!**
- Creative and vibrant facilitation
- Fun and engaging activities

Which data challenges does Data Artistry help with?

Skills for data storytelling

Knowledge and resources (tools)

Understanding data benefits

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Thank you!

For more information on the Data Artistry Programme, connect with Noluthando at
noluthando@datainnovators.co