DATA COMMUNICATION
FOR MANAGER (DATA VISUALISATION)

DNA-104

Duration: 5 days; Instructor-led | Virtual Instructor-led

WHAT YOU WILL LEARN

This programme is created specifically for learners who wish to design data displays to present trends and finding, incorporating new and advanced visualisation techniques and analytics capabilities

Knowledge and Skills Acquired:

- New data visualisation tools and techniques
- Range of methods to portray data patterns, trends and correlations
- Dashboard development process and techniques
- Features of data displays
- Strategic visualisation and mapping techniques
- Introduce new or emerging visualisation tools and techniques that are fit for purpose
- Exercise judgement on the presentation of data to ensure that critical trends and findings are presented in the optimal way
- Develop dashboards and scorecards incorporating advanced visualisation techniques and embedding analytics capabilities
- Review tables, graphs, and dynamic data displays, to ensure key questions from key stakeholders are addressed
- Design features of data displays including navigation, layout, user interface and user experience of interactive graphics
- Align interpretation and presentation of data analytics findings with subject matter experts

COURSE CONTENTS

MODULE 1: SELECTING NEW OR EMERGING DATA VISUALIZATION TOOLS AND TECHNIQUES THAT ARE FIT FOR PURPOSE
Topics:

- Introduction to data communication
- Data visualisation tools and techniques

Mapped to:

- K1 New data visualisation tools and techniques
- A1 Introduce new or emerging visualisation tools and techniques that are fit for purpose

Rationale for Sequencing of the Units

The first learning unit teaches learner how to apply logical sequence of steps in data visualisation tools starting with an introduction and overview of the data storytelling course, data visualisation tools and techniques. Data visualisation tools may include but are not limited to: Power BI, Tableau, Python and R.

MODULE 2: PREPARING DATA TO PRESENT TRENDS AND FINDINGS OPTIMALLY
Topics:

- Intrinsic characteristics of data
- Quant Rubik
- Workshop 1: Data Persona and Analysis Mapping

Mapped to:

- K2 Range of methods to portray data patterns, trends and correlations
- A2 Exercise judgement on the presentation of data to ensure that critical trends and findings are presented in the optimal way

Rationale for Sequencing of the Units

Subsequently, the next learning unit, it teaches the learners on the intrinsic characteristics of data through Quant Rubik starting with Data Persona such as entity, location, time and management which yield interesting analysis and insight when meshed together.

Learners are brought through a Customer Quant Rubik example.

Learners will differentiate the various methods to portray data patterns, trends and correlations and begin exercising judgement on the presentation to present critical trends and findings optimally.

MODULE 3: PRODUCING DASHBOARDS AND SCORECARDS WITH ADVANCED VISUALIZATION AND ANALYTICS TECHNIQUES

Topics:
- Data visualisation and patterns
- Workshop 2: Project Graph Choices

Mapped to:
- K3 Dashboard development process and techniques
- A3 Develop dashboards and scorecards incorporating advanced visualisation techniques and embedding analytics capabilities

Rationale for Sequencing of the Units

In the next learning unit, the learners move to the next step in the sequence whereby they are brought through the process and analytic techniques to develop dashboards and scorecards. In terms of data visualisation techniques, learners are taught when to use various graph types :

- Relationship (scatter chart, bubble chart, network diagram)
- Comparison (column chart, bar chart, circular area chart, tornado chart, Pareto chart, multiple boxplot)
- Composition (pie chart, tree map, heat map, sunburst chart)
- Distribution (scatter chart, histogram map, bell curve, boxplot)
- Process (funnel chart, Sankey chart)
- Temporal (line chart, run chart, stacked column chart, stacked area chart, waterfall chart)

MODULE 4: REVIEWING TABLES, GRAPHS, AND DYNAMIC DATA DISPLAYS, TO ENSURE KEY QUESTIONS FROM KEY STAKEHOLDERS ARE ADDRESSED

Topics:
- Alignment of reporting needs and choice of metrics and visualisation
- Workshop 3: Graph building

Mapped to:
- K4 Features of data displays
- A4 Review tables, graphs, and dynamic data displays, to ensure key questions from key stakeholders are addressed

Rationale for Sequencing of the Units

In the next learning unit, the learners are brought through alignment of reporting needs and their choice of metrics and visualisation. They review tables, graphs and interactive data displays

MODULE 5: MANAGING DASHBOARD DEVELOPMENT PROCESS AND DESIGN FEATURES OF DASHBOARDS INCLUDING NAVIGATION, LAYOUT, USER INTERFACE OR INTERACTIVE GRAPHICS

Topics:
- Design features of interactive and dynamic dashboards
- Dashboard Do's and Don'ts

Mapped to:
- K3 Dashboard development process and techniques
- A5 Design features of data displays including navigation, layout, user interface or interactive graphics

Rationale for Sequencing of the Units

In the next learning unit, the learners are now ready to fine tune their dashboards and this topic covers reading patterns and where information should be placed.

Learners are taught dashboard layout (inverted pyramid), interactive elements which provide richness of data without cluttering the dashboard.

This topic also covers aesthetic and readability features such as colour, font choice and size.

MODULE 6: RELATING DATA ANALYTICS FINDINGS WITH SUBJECT MATTER EXPERTS

Topics:
- Data Storytelling
- Workshop 4: Dashboard Design

Mapped to:
- K5 Strategic visualisation and mapping techniques
- A6 Align interpretation and presentation of data analytics findings with subject matter experts

Rationale for Sequencing of the Units

The last learning unit, LU6 teaches learners how to create a good dashboard with a complete story of the situation, with richness in data yet simple and intuitive visualisation with a natural flow of events to engage the target audience.

The last unit will pulled everything together based on what they have learned so far and, to explain the data visualisations used in their dashboards and align their interpretation and presentation of data analytics findings with subject matter experts.