Caring for data

This planning document is intended to support teachers who are delivering the NPA/PDA Data Science or for students who are learning independently. It also aligns with the Data Skills for Work framework.

Contents

Version Control

Version number	Purpose/Change	By	Date
1.0	Published by effini	Emma Nylk	25 Oct 2022

Lesson Description

Lesson Overview	What are the different data types that need to be cared for How to create a data dictionary
Topic	Quality and management
Book Chapter(s)	Quality and management

NPA level	5, 6
PDA level	7, 8
Data skills for work level	Data management, Core, Analysis

Lesson Contents

This lesson consists of:

- A lesson plan (this document)
- A PowerPoint/PDF presentation, 'Caring for data'
- Question worksheet (for learners) on 'Caring for data' in Excel/PDF
- Answers worksheet (for teachers) on 'Caring for data' in Excel/PDF

Learning Intentions

We will be looking at **caring for data**, specifically

- Why you should care for your data
- What are the different data types that need cared for
- How to create a data dictionary

Success Criteria

I can *explain* that data needs to be cared for.

I can *describe* the different type of datasets.

I can *create* a data dictionary for a given dataset.

Knowledge Prerequisites

Learners should know:

- what data is
- data can be transformed into valuable information
- data can be used to solve problems and find answers to questions

Lesson Requirements

	PDA	NPA	Data Skills for work
Qualification	Yes	Yes	Yes
Outcome ID(s)	WD7.1d, CD7.1c, CD7.1f WD8.1e, WD8.1h, WD8.2f, CD8.1f	DC5.2d, DS5.2d DC6.2d, DS6.2c	C2.1, A1.2, DL1.2
Outcome description(s)	WD7.1d – Data quality including bias CD7.1c – Types of data CD7.1f – Data quality WD8.1e – Data quality WD8.1h – Data management WD8.2f – Data quality including data bias CD8.1f - Data quality and data bias	DC5.2d - Explain methods of managing and securing data, DS5.2d - Describe methods of securing and managing data, DC6.2d - Explain methods of data management and data security, DS6.2c - Explain data management and data security techniques	C2.1 – Vocabulary used in data science and analytics A1.2 – Data quality DL1.2 – Data risks and challenges
Level	7, 8	5, 6	Data leadership, Core, Analysis
Software language	N/A	N/A	N/A
Required equipment /software for student	Lesson: PowerPoint/PDF, Worksheet: Excel/PDF	Lesson: PowerPoint/PDF, Worksheet: Excel/PDF	Lesson: PowerPoint/PDF, Worksheet: Excel/PDF

Task-types

In the worksheet for this lesson, there are up to 6 task-types to that become increasingly challenging to support the students learning. Based on the student's previous knowledge it is possible to select the task-types that are relevant to their stage.

Task-type	Description
1. Recall	To be able to recognise definitions or procedures.
2. Define	To be able to define definitions or procedures.
3. Rephrase	To be able to use their own words to describe definitions or procedures.
4. Apply	To be able to apply definitions or procedures to problem-solving activities.
5. Create	To be able to apply definitions or procedures and create their own solutions to a defined problem.
6. Active	Using knowledge from the lesson which they apply to scenarios they have researched/designed themselves.

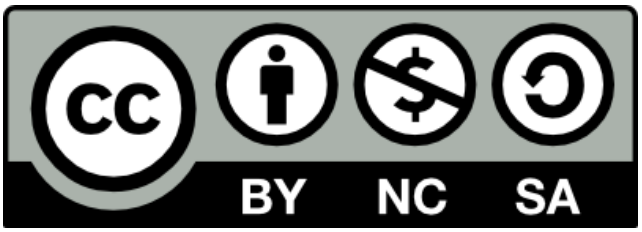
Worksheet

The worksheet associated with this lesson is available either in Excel or as a PDF that can be printed. The answer worksheet is available in both formats too.

Worksheet section ID	Description	Task-type	Number of questions
1.1	Caring for datasets	Recall	1
1.2	Caring for datasets	Rephrase	2
1.3	Caring for datasets	Apply	4
1.4	Caring for datasets	Active	2
2.1	Create a data dictionary	Recall	2
2.2	Create a data dictionary	Apply	5
2.3	Create a data dictionary	Active	1
Total			**17**

How you can use this lesson

This lesson has been created by effini in partnership with Data Education in Schools and Skills Development Scotland.



Alternative format

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