# Use Cases

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## Data Collection: Documentation of questions (including filters, material, answers) and its relation to study information. Documentation of other measurements other than questions, e.g blood pressure or twitter data.

I.1 Simple questionnaire:

Identify the question and connect it with external system (e.g. a maintainable ID?) (UseCase Example 1 “Smoking”)

Document the question text and question label (UseCase Example 1 “Smoking”)

Substitute he/she dependent on gender question previously answered (Use Case Example “gender dependent questions”)

Document Interviewer instruction (UseCase Example 2 “EVS”)

Document introductory text to question (Use Case Example “gender dependent questions”)

Document the sequence of questions, together (optionally) with numbers (UseCase Example 1 “Smoking”)

Document the filters (input filters, output filters) - also known as routing (UseCase Example 1 “Smoking”)

Document show card (UseCase Example 2 “EVS”)

Document language (UseCase Example 3 “EVS”, turkish)

Document answer categories or open ended (UseCase Example 1 “Smoking”)

Document measurement (UseCase Example 1 “Blood Pressure”)

Show question block, consisting of more than one item (UseCase Example 1 “Smoking”)

Relationship question - variable (UseCase Example 2 “EVS”)

Relationship question - study (UseCase Example 2 “EVS”)

Note about comparability (UseCase Example 2 “EVS”)

-----------------------ALL ISSUES FROM ABOVE ARE INCLUDED IN JIRA

Relationship question - concept (UseCase Example 4)

Relationship question - (sub-)universe (UseCase Example 4)

Relationship question - mode of data collection (UseCase Example 4)

Relationship question - publisher/provider (UseCase Example 4)

Relationship question - classification/keywords (UseCase Example 4)

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I.2 Re-use of question in Data Collection

Identify the re-used question

Relationship to a variable

I.3 Simple protocol

Define the observational object

Define the measure, together with the concept

Define the collection time and place

Relation to Variable(s), within dataset

Document instructions

I.4 Document choice of web or paper mode within an interview, break in interview - e.g. switches from web to face-to-face-for post prototype - JJ to write

I.5 Obtaining register data (official data)

Polling or update of same data structure to update records

I.6 Internet source (e.g. web scraping) - requires workflow and protocol for information captured about the web scraping event. Transformation path from source to dataset

Which type of source (HTML, specific social media platform, etc.) (USE Case Example 4)

Selection of sources: Universe, sampling (optional), filter by criteria?

Which data is being captured? Is it classified (procedure?)

Coverage by topics (e.g. hashtags, keyword filtering etc)

Geographic or IP-range coverage, date/time coverage

Specifics about the application (Twitter, Facebook etc) as a datasource, also specific APIs or tools/commercial services may be used

Connecting information within the network if a “snowball” approach is used

Legal and ethical considerations (informed consent, intellectual property, copyright)

I.7 Streaming data source (e.g. smart meter data, IOT) - what is limited due to requirement of qualitative

In addition to the “Internet source” information:

Update interval of the data and/or dataset

Versioning issues (identification, documentation)

Selections while capturing the stream

## I.? Think about re-use

## II. Data Description

II.1 Simple rectangular dataset

One record per case

Multiple records per case

II.2 Hierarchical/Multilevel data

Records relationships and linkage

II. 3 Aggregate data

Describe cell content in relation to source variables (dimensions)

Common attributes:

File name, location, identifier, software type

Relationship to study

Data layout

Variable cascade

* (example already in process of being done in XML)

II. 4 Statistical Classification

* (example already in process of being done in XML)

II.5 Variable relationship to question/capture in instrument

II.6 Weight variable composed of two weight variables

II.7 Multiple weight variables with different uses for analysis

II.8 Logical description of variables

Instance variable description:

ID, Name, Label, Description, Categories, link to question, link to concept (?)

Relationship Instance/Represented/Conceptual variable

Represented Variable Description:

ID, (name?) (Label?) Description, Categories, link to question (?) link to concept (?)

Relationship to Conceptual variable

Conceptual variable description:

ID, (name?) (Label?) Description, Categories, link to question (?) link to concept

II.? Think about re-use

## Data Transformation

Recode a variable into another (new) variable

Create new variable based on a procedure applied to one or more existing variables (e.g., compute, etc.)

Harmonise two variables using a represented variable

Verification processing during archive ingest (data checks)

* Data contains only values in a code list
* Data contains only values within a range

Confidentialization

* Is this just basically a recode (income > $100,000 do something)
* Check for combinations of variables that have fewer than x respondents in them

Imputation

* Identify sensitive variables (address, email, income, profession, geographic etc.)
* If a is missing a= b+10%

Build index by calculation of several variables, relation to concept

Think about re-use

## Study Information -- use case: Catalogue Record: Documentation of study information and its link to other parts of a survey (instrument, dataset, other study, studyseries)

Simple Study - Catalogue Record;

Document name

Document sampling procedure

Document mode of collection: currently not possible

* <https://ddi-alliance.atlassian.net/browse/DCAP-58>

Document methodology: currently not properly developed.

Should it be in the prototype? (yes, users and testers will be looking for it)

Weighting - there is no dedicated class or subclass for weighting

Mode Of Collection - there is no dedicated class or subclass for ModeOfCollection

Document universe

Document coverage (spatial, temporal, topical)

Document persons / affiliations/institutions (creator, contributor, publisher, funding agency):

Document on contributor (name, identifier, type,...)

Document on funding (name, identifier, award, ...)

Document availability/rights

Document study descriptions (abstract, table of content,...)

Document classifications/keywords

Identify studies (study number, study id)

Citation of study

Publications on study (structured/unstructured)

Connecting a dataset to an instrument inside a data collection

Connecting a dataset to a Study directly

Grouping two instruments in a study

Grouping two studies in a study series

Archiving a study (including description, provenance and ownership)

Think about re-use

## Data Description & Capture

Common Data Element example

* <https://cde.nlm.nih.gov/home> or <http://webarchive.nationalarchives.gov.uk/20160106185646/http://www.ons.gov.uk/ons/guide-method/harmonisation/primary-set-of-harmonised-concepts-and-questions/long-lasting-health-conditions-and-illnesses--impairments-and-disability.pdf>

Think about re-use