



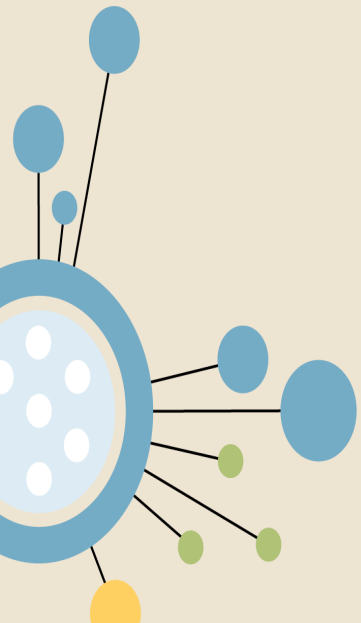
The Questionnaire Design and Documentation Tool (QDDT): a tool for developing questions and documenting the design process

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NSD – Norwegian Centre for Research Data

**CLOSER webinar: Metadata management in the real world:
Questionnaire Development and Data Collection**

September 23, 2020





What is it?

- A web based open source tool,
- aimed at capturing the questionnaire design process of complex surveys (development of source or master questionnaires),
- funded by the DASISH and SERISS EU projects and NSD.
- Multiple actors at different locations can work in the tool at the same time.
- Concepts, questions, sequences and instrument modules can be developed.
- Comments can be added to entered content.
- The tool is designed to keep track of changes throughout the question development process.
- The versioning system lets the user document why changes were made and helps keeping track of the change history at the level of individual items.



What is it? Ctd.

- Components like response options (domains), question items etc. can be developed and managed separately from each other.
- This allows reuse of components within the same instrument, as well as over time. (Example: The same education code list used to measure respondent, partner, mother and father's highest level of education).
- Metadata from the QDDT can be published at different steps in the questionnaire design workflow.
- The QDDT is based on the DDI-Lifecycle metadata standard, making metadata from the QDDT **F**indable, **A**ccessible, **I**nteroperable and **R**eusable (**FAIR**).
- Interoperability with the DASISH Translation Management Tool (TMT) and the QVDB (Question Variable Database) is progressing.



Background

- The **European Social Survey (ESS) questionnaire design process** is the core use case
- Biannual attitude survey covering more than 30 countries.
- Strong focus on methodology
- Two topical questionnaire modules and related design teams elected for each ESS round
- Iterative process over two years including discussions at different steps in the workflow, testing and piloting
- Multiple actors involved: Questionnaire designers, National Coordinators, Translation team, methodology experts etc.
- ESS Head Quater at City, University of London is responsible



QDDT

Documenting the ESS questionnaire design process

01_ESS6_Personal_and_Social_wellbeing - Template_Draft_1.pdf

02_ESS6_Personal_and_Social_Wellbeing - Template_Draft_1 - with_con

03_ESS6_Personal_and

04_ESS6_Personal_and

05a_ESS6_Personal_an

05b_ESS6_Personal_an

06a_ESS6_Personal_an

06b_ESS6_Personal_an

07_ESS6_Personal_and

08_ESS6_Personal_and

09_ESS6_Personal_and

10_ESS6_Personal_and

City comments:

Inclusion of the term 'challenging' caused difficulties for some respondents in cognitive interviewing. However, we feel that reducing the item to 'interesting' only means that it is no longer sufficiently distinct from 'Absorption' or 'Boredom'. We therefore propose dropping this item from the sub concept.

20a CARD X How often do you do things that you find interesting? Please use this card.

None or almost none of the time	01
Some of the time	02
Most of the time	03
All or almost all of the time	04
(Don't know)	88

City comments:

This item was not pre-tested but we feel that it is not sufficiently distinct from 'Absorption' or 'Boredom'. We therefore propose dropping this item from the sub concept.

SUB CONCEPT NAME: Boredom

Describe the sub concept in detail outlining any further sub concepts or specifying that it can be measured directly

Feeling bored can be characterised as the opposite of feeling engaged in activities, hence low levels of boredom should be associated with high levels of engagement.

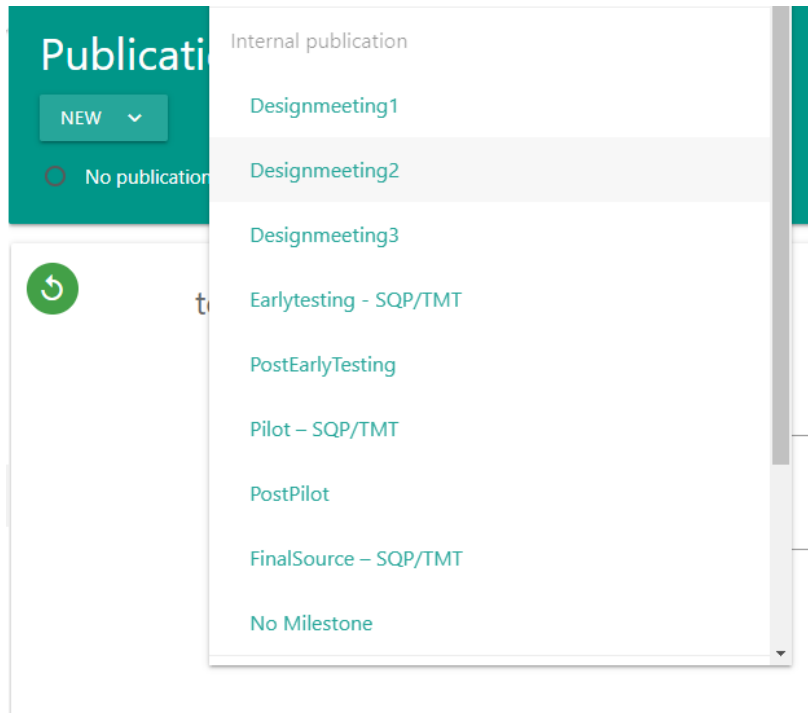
← Comment

← Question

← Comment

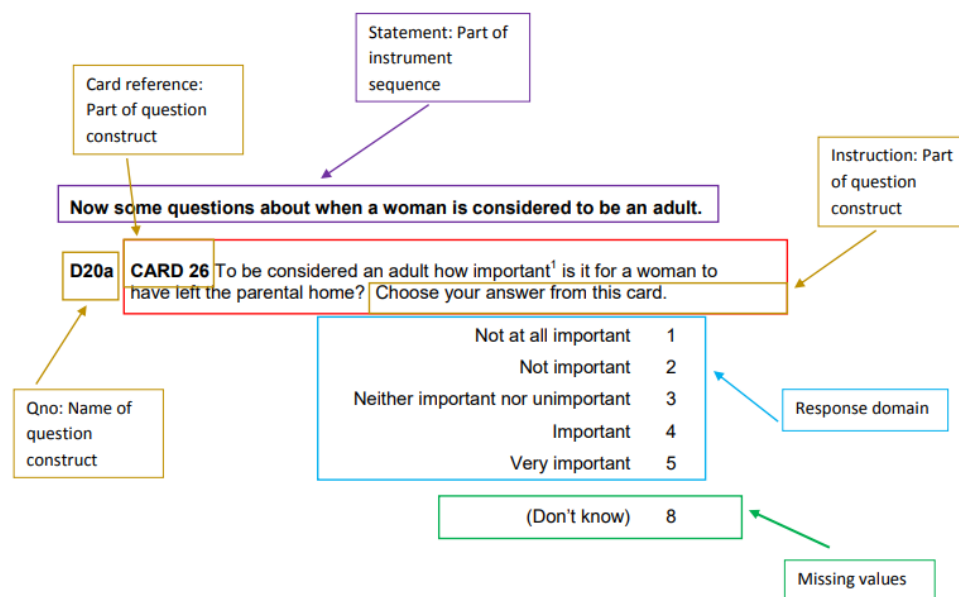
- A word template created for each step in the questionnaire design workflow
- Contains concepts, questions, comments, translation remarks, results from testing etc.

Templates to be replaced by a working tool



- Where content can be developed, the history kept track of, comments and other material can be added etc.
- Content of choice can be published for each workflow step

Components of a question in DDI, and reuse

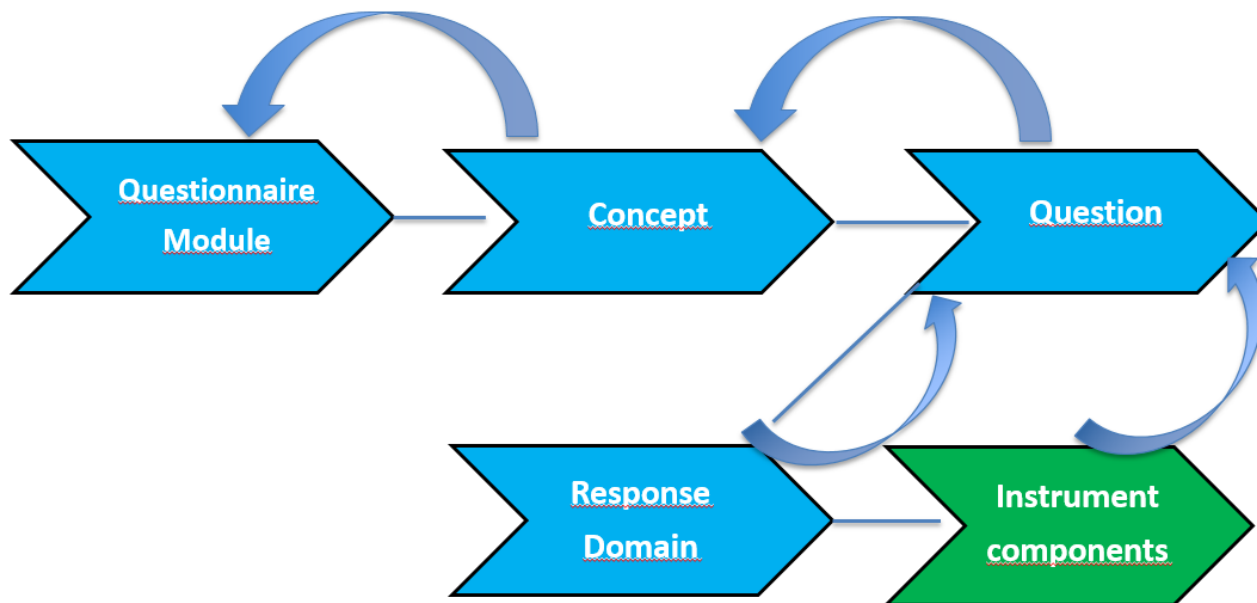


- Reusable question item consisting of a question item and a response domain
- Response options can be maintained separately from the question and referenced by it
- The different components can be versioned differently from each other
- More instrument specific content is added on the level of the question construct (question as in the instrument), or by adding instrument components like statements and sequences



QDDT

ESS questionnaire design flow





Reuse of QDDT content at different steps in the research data lifecycle

Questionnaire design



development

DDI 3.2 xml

```
<ddi:Fragment>
  <d:QuestionItem isUniversallyUnique="true" versionDate="2020-09-15T10:36:49.211Z" isVersionable="true" >
    <r:URN type="URN" typeOfIdentifier="Canonical">urn:ddi:int.esseric:d6c9a8de-d3c8-428d-a325-f6b530a68fd6:1.0.3877</r:URN>
    <r:UserID typeOfUserID="User.Id">83d4c316-4ff9-11e5-885d-feff819cdc9f</r:UserID>
    <r:VersionResponsibility>Hilde@int.esseric</r:VersionResponsibility>
    <r:VersionRationale>
      <r:RationaleDescription>
        <r:String xml:lang="en-GB">[New element status] ↗ New element status</r:String>
      </r:RationaleDescription>
      <r:RationaleCode>CREATED</r:RationaleCode>
    </r:VersionRationale>
    <d:QuestionItemName>
      <r:String>ADVANTAGE</r:String>
    </d:QuestionItemName>
    <d:QuestionText isStructureRequired="false">
      <d:LiteralText>
        <d:Text xml:lang="nb-NO" isPlainText="false" xml:space="default">Using this card, do you think that most people would try
        </d:Text>
      </d:LiteralText>
    </d:QuestionText>
    <d:QuestionIntent>
      <r:Content xml:lang="en-GB" isPlainText="false">'take advantage'; exploit or cheat.
      fair': in the sense of treat appropriately and straightforwardly</r:Content>
    </d:QuestionIntent>
    <d:StructuredMixedResponseDomain>
      <d:ResponseDomainInMixed>
        <d:ScaleDomainReference isExternal="false" isReference="true" lateBound="false">
          <r:URN type="URN" typeOfIdentifier="Canonical">urn:ddi:int.esseric:935e881d-8d71-4103-a2a7-d8979ec7b211:1.0</r:URN>
          <r:TypeOfObject>ManagedScaleRepresentation</r:TypeOfObject>
        </d:ScaleDomainReference>
      </d:ResponseDomainInMixed>
    </d:StructuredMixedResponseDomain>
  </d:QuestionItem>
</ddi:Fragment>
```

Translation/CAPI development



reuse

Variable documentation



reuse

Under testing



Thanks to

Sarah Butt, Yvette Prestage, Virginia Roos, Luca Salini, Sally Widdop
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Dag Ø. Heradstveit, Knut Kalgraff Skjåk
NSD - Norwegian Centre for Research Data

Joachim Wackerow
Consultant



QDDT

Interested to learn more about the QDDT?

QDDT project site

<https://github.com/DASISH/qddt-client/wiki>

Please contact us at

surveytools@nsd.no



Online presentation of the QDDT test server at <https://qddt-test.nsd.no/login>

Stig Norland