

Bringing usability to pretesting of Business Survey Web Forms in Statistics Finland

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- An Example Usability Case - Quarterly inquiry on international trade in services
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 - Usability Problem Classification

Cognitive Interviewing on Business Statistics in StatFin

- Sessions are held on site in the respondent's premises
 - Vs. household/individual in a laboratory
 - Methodologist always present
- The testing session is recorded with a software that captures audio and on-screen activity of the computer
 - Only the web questionnaires are tested

- Usability issues are also included in the protocol

Quarterly inquiry on international trade in services

AN EXAMPLE USABILITY CASE

Foreign trade in services

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Frontpage

The due date by which responses must be returned is the 20th of the following month or the first weekday after it.

1) You can fill in the electronic form on the "Exports of services abroad" and "Imports of services from abroad" tabs

or alternatively

2) Submit the data on exports and imports of services as a csv file on the "Send csv file" tab.

- This way of answering is suitable for enterprises that have several items of international trade in services to several different destinations and whose information systems enable automatic creation of the file.

Further information about the data content is available from the following persons

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Switchboard: +358 17341

Service email address

globalisaatio.tilastot@stat.fi

Further information about data collection

[Quarterly inquiry on international trade in services](#)

[International trade in services homepage](#)

[Go to contact information](#)

Foreign trade in services

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Contact information

*Required input

Details of the enterprise

Enterprise id*

Name of enterprise*

Details of the enterprise's contact person

Name of contact person*

Telephone number

Email address

Address of contact person

Postal code

Post office

Information on the person filling in the form (if not the same as the contact person)

Data submission modes

- 1) Fill in the electronic form on the "Exports of services" and "Imports of services" tabs

[Save and go to exports page](#)

Foreign trade in services

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Exports of services

- This inquiry concerns the quarter that has just ended, but you can also update or correct data for three preceding quarters.
- You can find more details about each service by pressing the information bullet in connection with the legend.
- The data are reported in euros (EUR 1).

Communication services

958 Postal services

Poste restante services, telegram services and post office counter services.

Countries	2012 Q1	2012 Q2	2012 Q3	2012 Q4
<input type="text" value="Albania"/>	531	654	465	45
<input type="text" value="Bahrain"/>	12	321	321	555
<input type="text" value="Denmark"/>	5174	55	6546	5165

[Add country](#)

Total 5765

[Save](#)

959 Courier services

Express and door-to-door delivery.

Countries	2012 Q1	2012 Q2	2012 Q3	2012 Q4
<input type="text" value="New Caledonia"/>	6511	4512	5671	654

[Add country](#)

Total 654

[Save and go to contact information](#)
[Save and go to imports page](#)

Foreign trade in services

Frontpage

Contact information

Exports of services

Imports of services

Send csv file

End page

Instructions

Exports of services

- This inquiry concerns the quarter that has just ended, but you can also update or correct data for three preceding quarters.
- You can find more details about each service by pressing the information bullet in connection with the legend.
- The data are reported in euros (EUR 1).

Communication services

958 Postal services	2012 Q1	2012 Q2	2012 Q3	2012 Q4
Albania	531	654	465	45
Bahrain	12	321	321	55
Denmark	5174	55	654	5174
Total	5715	1030	836	599

Poste restante services, telegram services and post office counter services.

959 Courier services

Countries	2012 Q1	2012 Q2	2012 Q3	2012 Q4
New Caledonia	6511	4512	671	654
Total	6511	4512	671	654

Express and courier delivery.

• Respondents found it difficult to browse through the classification and match with their own business functions

Save and go to contact information

Save and go to imports page

Foreign trade in services

Frontpage

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Instructions

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Communication services

958 Postal services

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Albania	531	654	465	45
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Add country

Total 5765

Save

959 Courier services

Countries	2012 Q1	2012 Q2	2012 Q3	2012 Q4
New Caledonia	6511	4512	5671	654

Add country

Total 654

Poste restante services, telegram services and post office counter services.



958 Postal services

Postal services comprise poste restante services, telegram services and post office counter services, such as sales of stamps, money orders, etc. Flows between operators in different economies should be recorded on a gross basis.

Save and go to contact information

Save and go to imports page

Foreign trade in services

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Details of the enterprise's contact person

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Telephone number

Email address

Address of contact person

Postal code

Post office

Information on the person filling in the form (if not the same as the contact person)

Data submission modes

1) Fill in the electronic form on the "Exports of services" and "Imports of services" tabs

or

2) Submit the data on exports and imports of services as a csv file on the "Send csv file" tab.

- This way of answering is suitable for enterprises that have several items of international trade in services to several different destinations and whose information systems enable automatic creation of the file.

Save and go to exports page

Save and go to send csv file

Foreign trade in services

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Submitting data on international trade in services as a csv file

Submitting data as a csv file is an alternative method. If you have already filled in data on exports and imports of services, a csv file must not be sent.

This inquiry concerns the quarter that has just ended, but you can also update or correct data for quarters or years prior to the one being reported. If you update or correct previous quarters, please report that in the Additional information field of the Contact information page. Please also indicate whether this submission adds to previous data or replaces a previous submission concerning the quarter in question.

- Send in the data in **.csv** format.
- The maximum size of the file is 20 Mb.
- An example of a csv file

```
12345678;2012;2;US;260;M;3215
12345678;2012;2;EE;260;X;545
12345678;2012;2;SE;250;X;26
```

In the example, an enterprise, whose Business ID is 12345678, imported in the second quarter of 2012 financial services from the United States to the tune of EUR 3,215, exported financial services to Estonia to the value of EUR 545 and exported construction services to Sweden worth EUR 26.

[Instructions on forming a csv file](#)
[List of country codes](#)
[List of service items](#)
[Send file](#)

- When you have sent the csv file, you can log out from the end page or from the log out button in the top right corner of the page.

[Go to end page](#)

- If you have submitted data for other quarters than the one being inquired, please report that in the Additional information field of the Contact information page. Please also indicate whether that submission replaces or supplements any previous data.

[Go to contact information](#)

Step Further in Research and Development

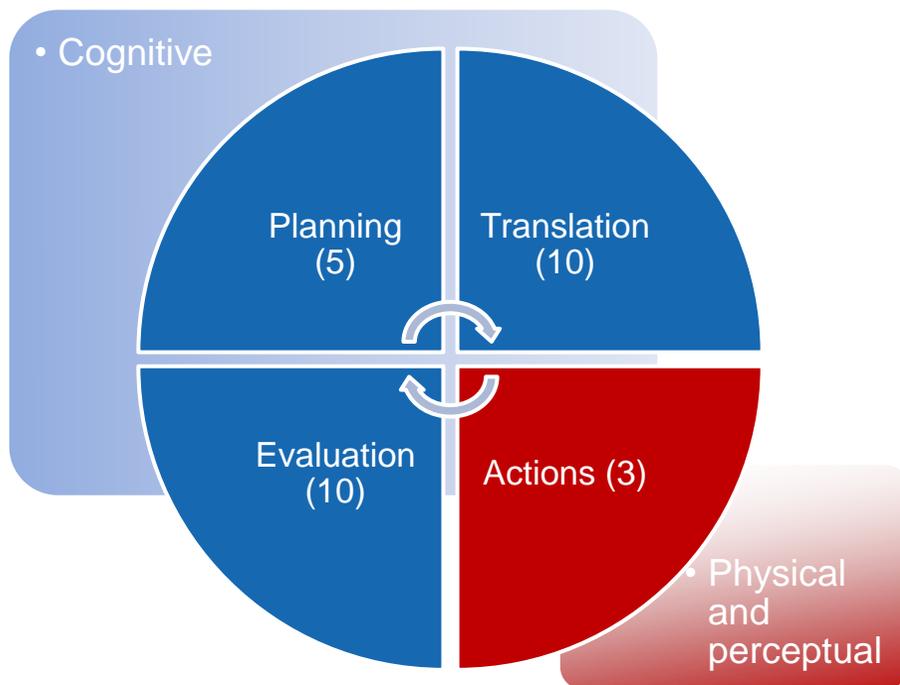
- The problem could be that the information gained in the testing is not exploited in redesign issues in the future
- Need for better practices
 - Systematic and transparent way for organizing the observations
 - More detailed insight
 - How to simultaneously take into account the issues related to the overall response process and usability
 - Information sharing
 - Documentation

Contents of the Analysis

- The analysis is divided under two themes:
 - Usability: the interaction between the respondent and the web form
 - Survey response process: Organizational and behavioural factors that affect the survey response of an establishment
- Objective to exploit different frameworks to guide development activities and facilitate usability problem reporting

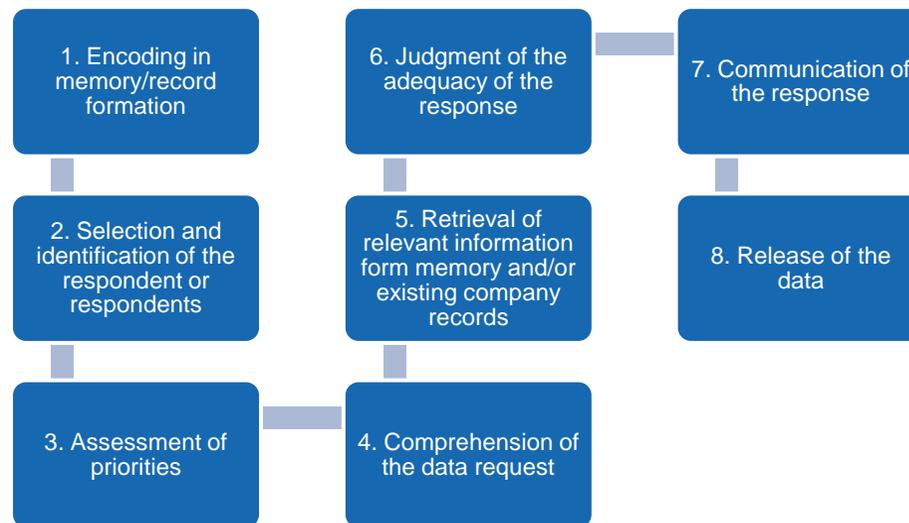
Frameworks

Usability: A modified version of the user action framework¹



(x) = number of subcategories

Response process: the hybrid response process model for business surveys²

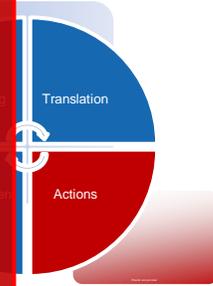


1. Terence S. Andre, H. Rex Hartson, Steven M. Belz & Faith A. McCreary, The User Action Framework A Reliable foundation for Usability Engineering Support Tools, Int. J. Human-Computer Studies, 2001

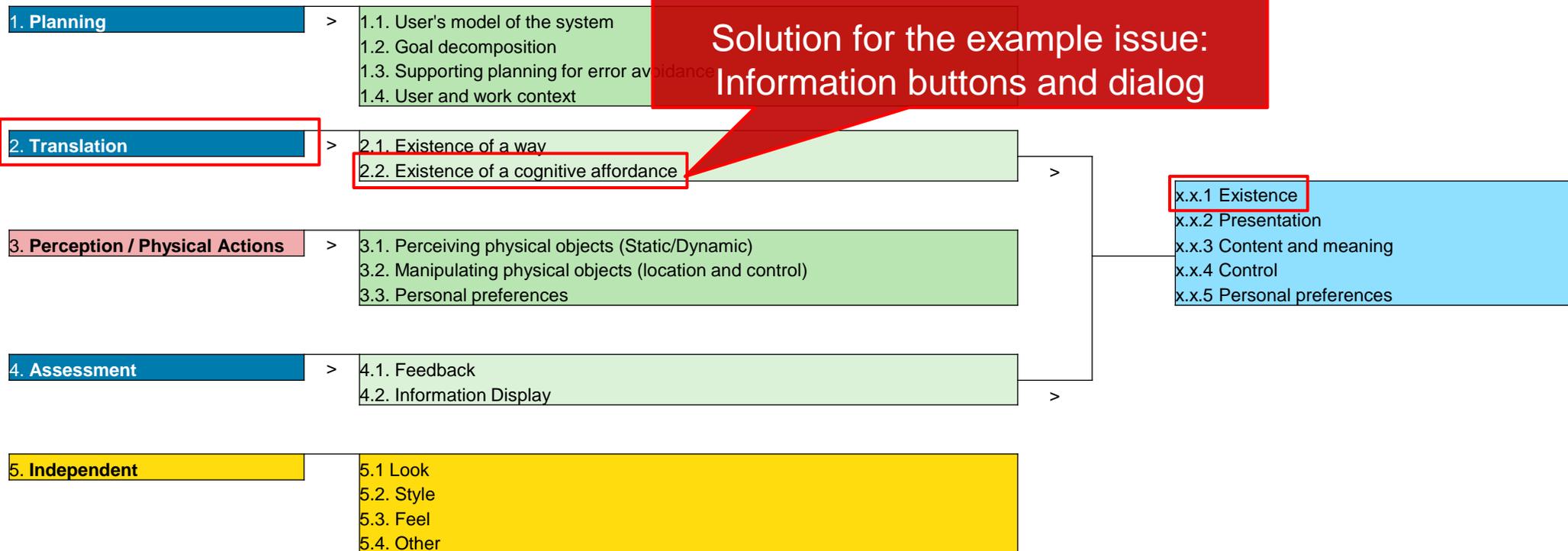
2. Diane K. Willimack & Elizabeth Nichols, A Hybrid Response Process Model for Business Surveys, Journal of Official Statistics, 2010

Usability Problem Classification

“Cognitive affordances help the user think or know about something and how it can be used. Cognitive affordances are screen objects that are, for example, visual cues to help determine actions to carry out an intention.”*



Solution for the example issue:
Information buttons and dialog



* Terence S. Andre, H. Rex Hartson, Steven M. Belz & Faith A. McCreary, The User Action Framework A Reliable foundation for Usability Engineering Support Tools, Int. J. Human-Computer Studies, 2001

Thank you for your attention!

Questions and Comments:
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References

- 1. Terence S. Andre, H. Rex Hartson, Steven M. Belz & Faith A. McCreary (2001), The user action framework: a reliable foundation for usability engineering support tools, *Int. J. Human-Computer Studies*, 54, 107–136.
doi:10.1006/ijhc.2000.0441
- 2. Diane K. Willimack & Elizabeth Nichols, A hybrid response process model for business surveys (2010), *Journal of Official Statistics*, 26(1), 3–24

