

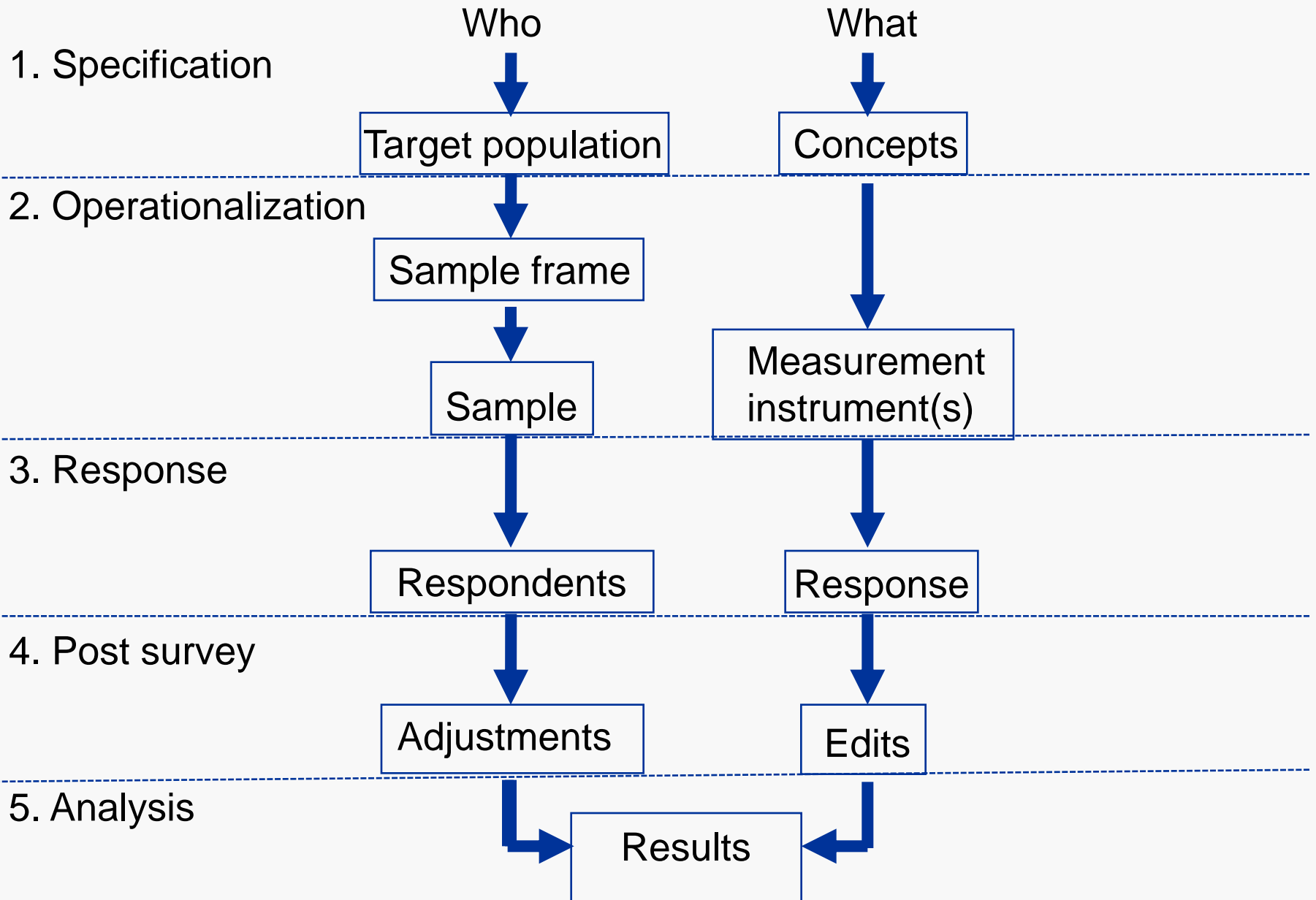
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Characteristics of business surveys and business web questionnaires

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Statistics Norway

Outline

1. Business Statistics → Business Survey Design
2. How Businesses operate → Business Survey Framework
3. Respondents' tasks → Questionnaire Challenges
4. Some Web Questionnaire Tools



Characteristics Business Statistics

Characteristics

- Input to National Account



- Focus on Economic trends

Consequences

- Stratified sampling according to size (and industry)
- Several surveys to complete
- Selective follow ups
- Panel designs
- Ongoing relationships
- Indicators rather than point estimates

Business Survey Topics

- Business characteristics
- Production measured by volume or value
- Expenditures and investments
- Consumption of energy and other resources
- Number of employees, their qualifications, field of work and hours worked
- Transactions between businesses
- Volume sold and financial results
- Business trend evaluations
- (Evaluations of working conditions)
- (Customer evaluations)



Businesses as Survey Objects

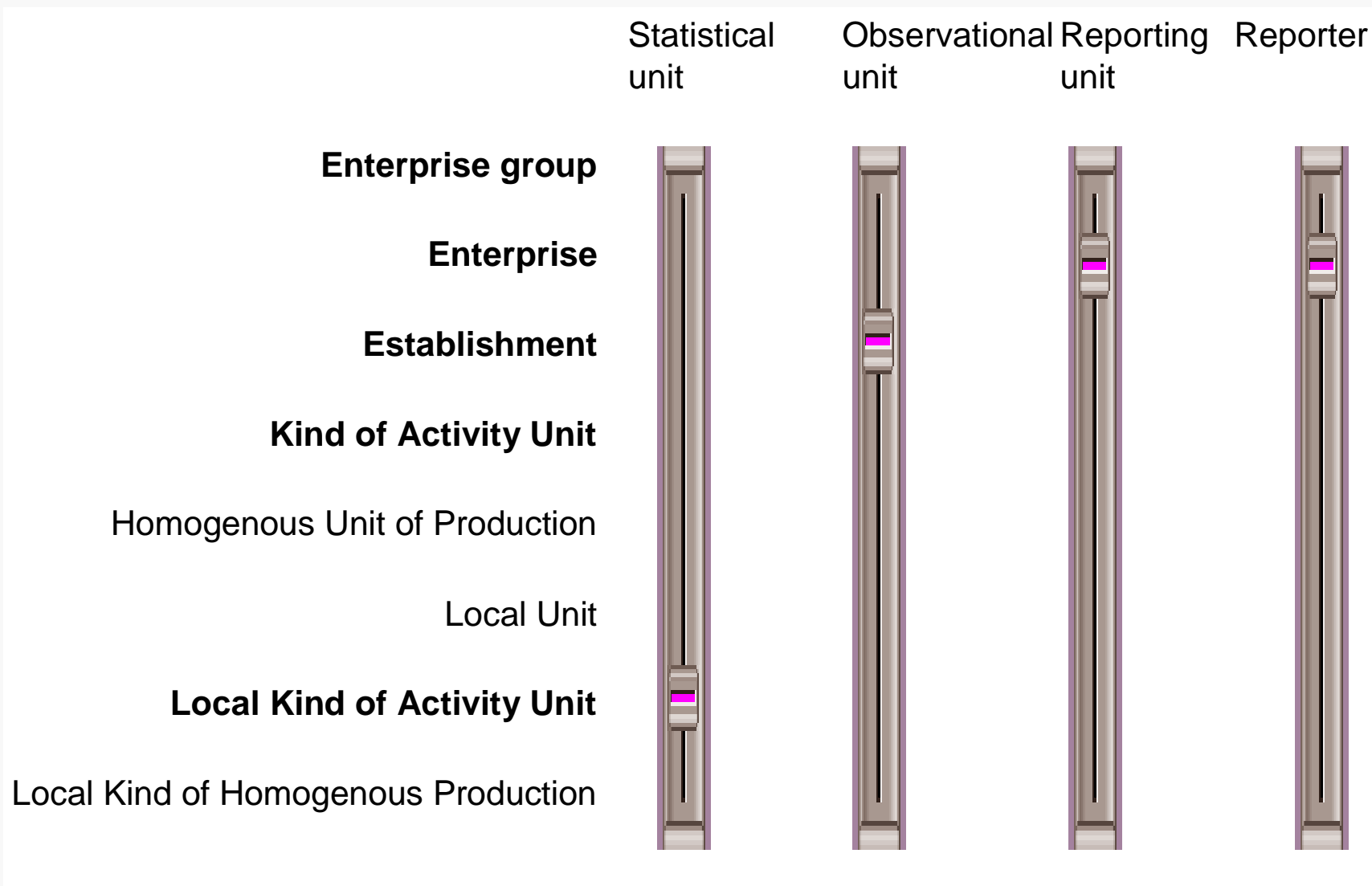
Characteristics

- Businesses are economic units made up of one or more establishments

Consequences

- Classification challenges
 - + Relationships between units
-
- = Sample quality

The relationship between business and survey units



Businesses as Survey Objects

Characteristics

- Businesses are economic units made up of one or more establishments
- Their main purpose is to produce goods and services
- Management, knowledge and records are located where they are needed and used

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Management Response Burden Considerations

Costs

- Surveys represent a cost without associated benefit
 - “non-productive cost”



Benefits

- Intangible & indirect
 - Data are used by others that affect the business environment, e.g. ---
 - Policymakers
 - “The economy”
 - Lenders
- Accrue to businesses through economic mechanisms

Access to the Best Respondent?

- **Technical Core**
 - Those whose job is the production of goods & services
 - And the associated data
- **Boundary Spanners**
 - Interface with the outside world and across internal units

Businesses as Survey Objects

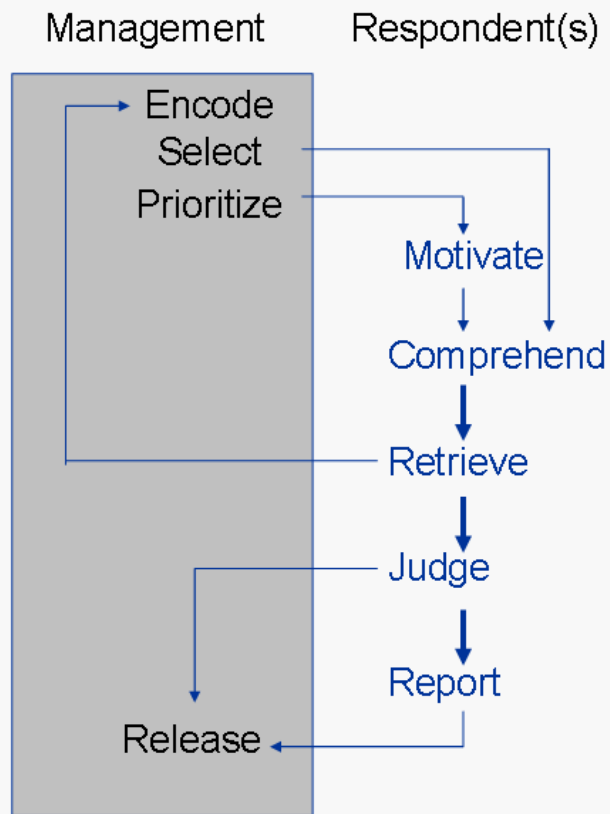
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Consequences

- Classification challenges
 - + Relationships between units
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- = Sample quality
-
- Response burden considerations
 - + Control executed by boundary spanners
-
- = Respondent selection

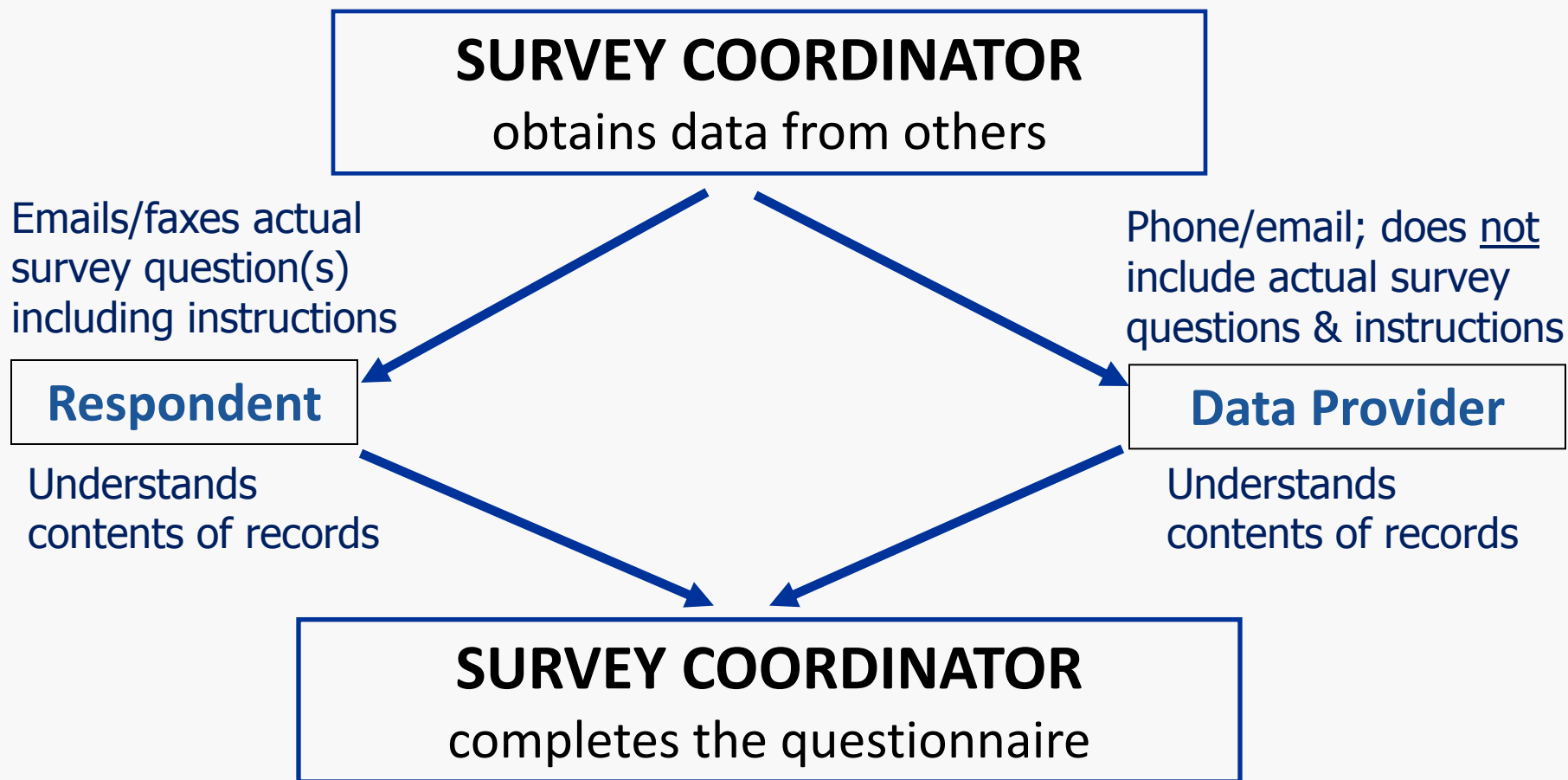
Respondent Quality



Context influence on...

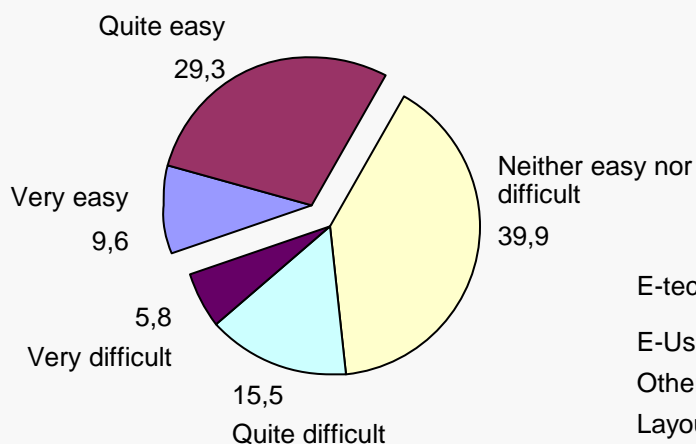
- Respondent selection
- Scheduling
- Prioritizing & motivation
- Release policy

Respondent = Survey Coordinator

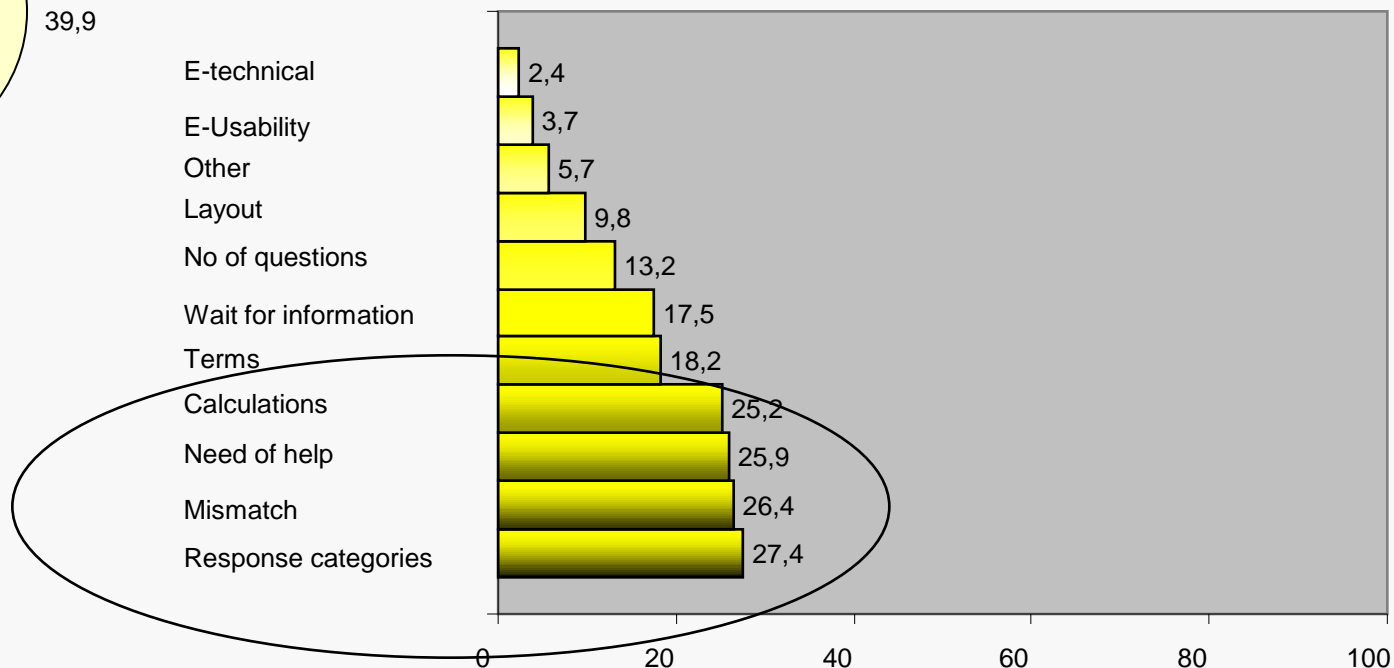


Perceived Response Burden and Sources of Response Burden. Structural Statistics 2010. Percent (n = 16 572)

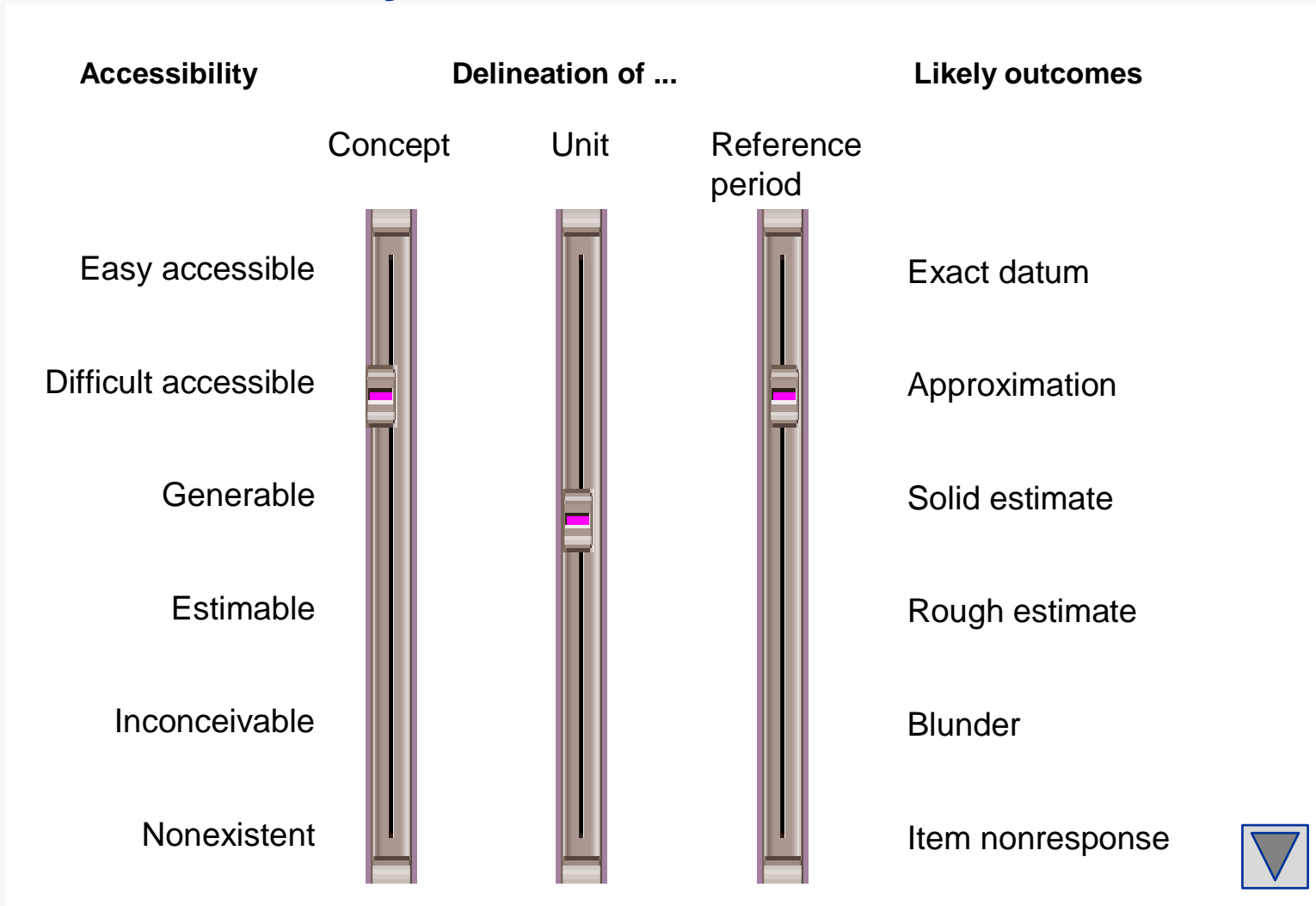
Perceived Response Burden



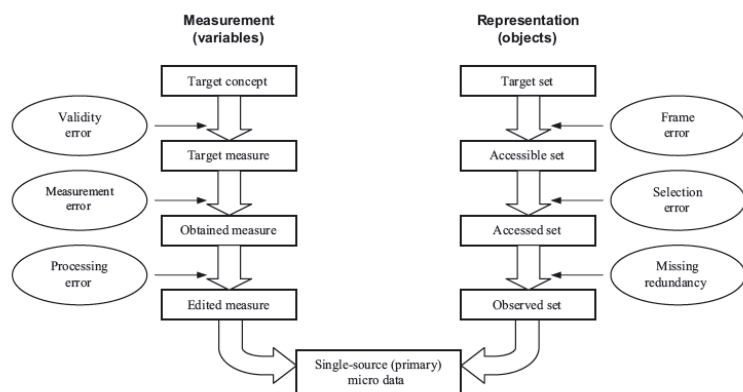
Sources of Response Burden



Practical and substantial information problems in business surveys

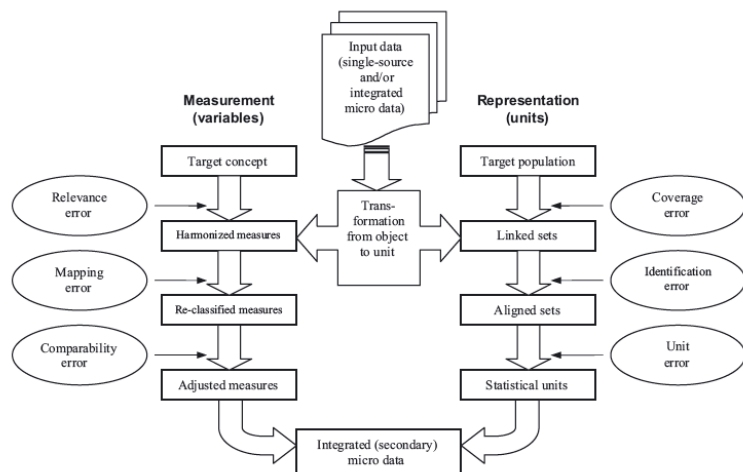


Retrieval and judgements from administrative sources



Data collection:

- Target objects and information
- A sample from accessible information
- Information missing

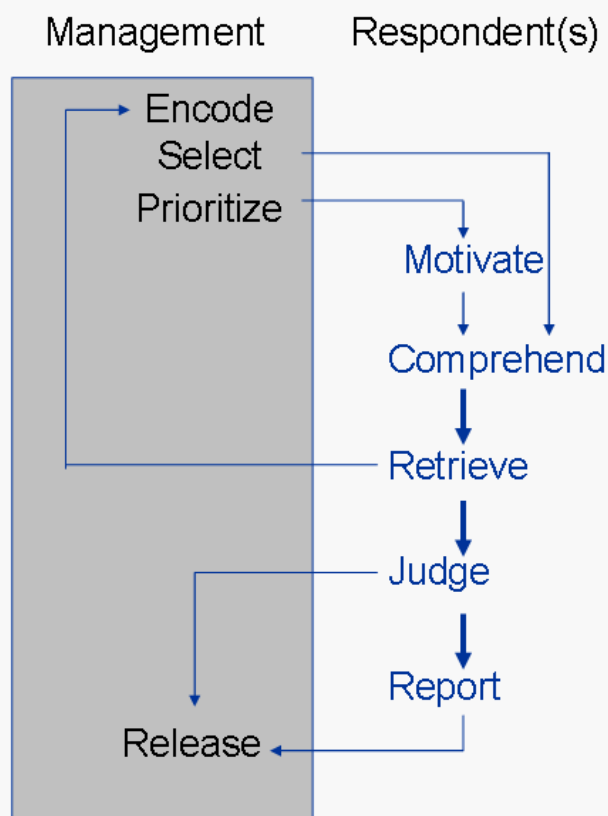


Data transformation:

- Units \leftrightarrow Variables
- Linking
- Alignment
- Unit nonresponse

Zhang, L.C. 2012. "Topics of statistical theory for register-based statistics and data integration." *Statistica Neerlandica* 66(1):41-63.

Respondent Quality



Context influence on...

- Respondent selection
- Scheduling
- Prioritizing & motivation
- Release policy
- Record formation

Personal ...

- Knowledge of available information
- Authority to act as survey coordinator
- Understanding of the difference between recorded data and requested data

Businesses as Survey Objects

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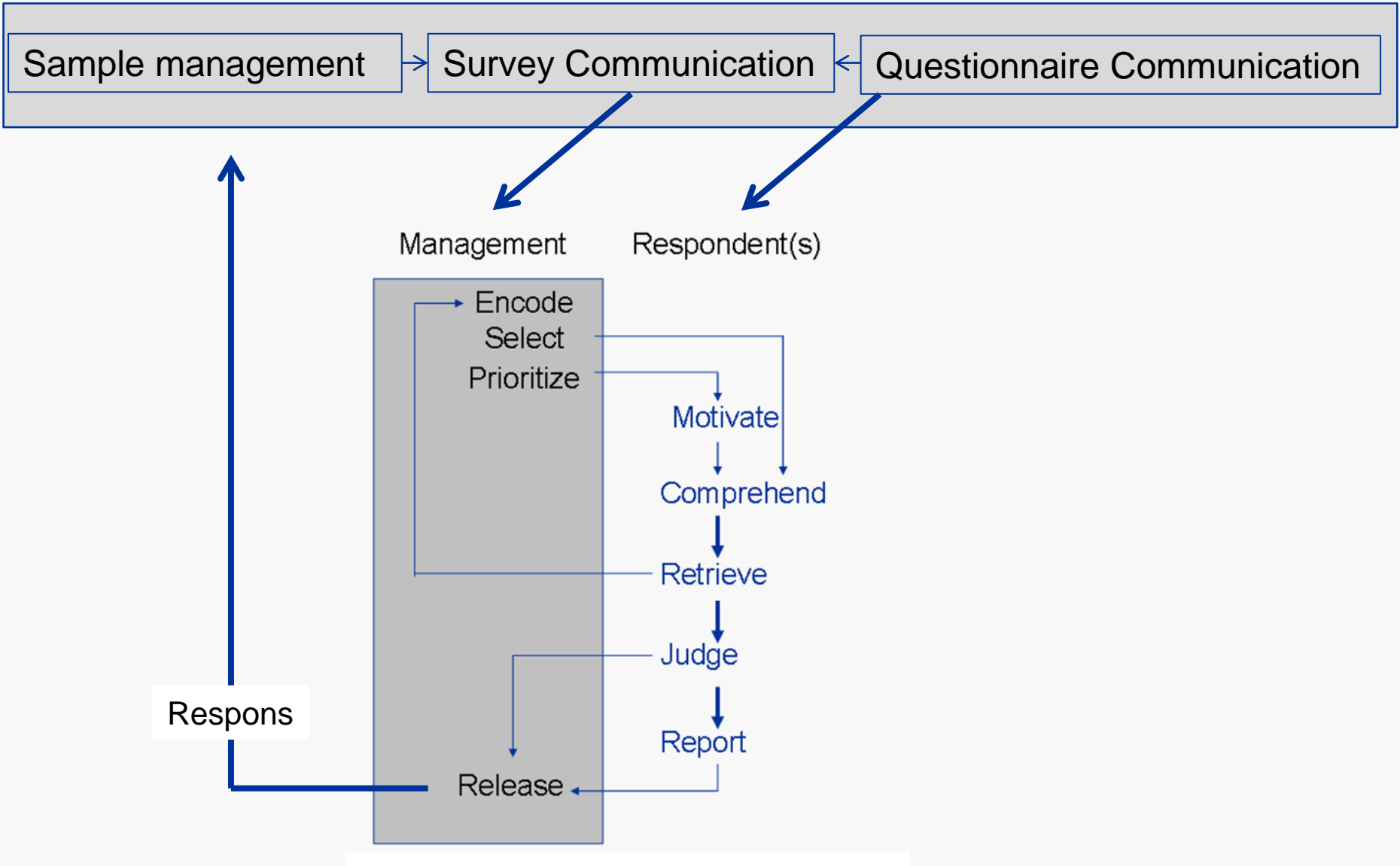
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- + Control executed by boundary spanners

- = Respondent selection

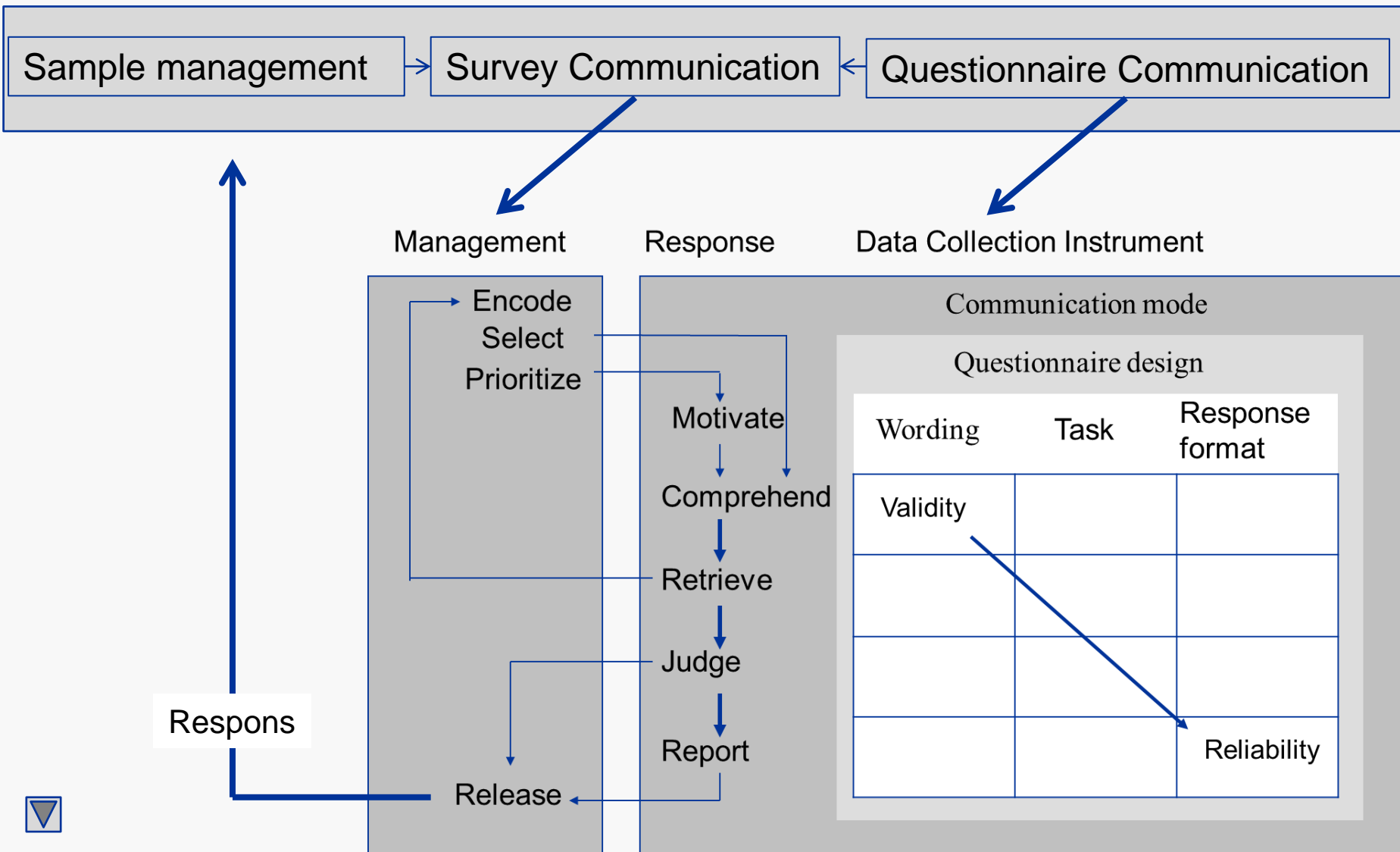
- Environmental conditions
- + Network
- + Personal motivation, authority and capacity

- = Respondent quality






Relationships between survey and business organizations



Relationships between survey and business organizations



Tailoring Web Surveys to Business Survey Characteristics

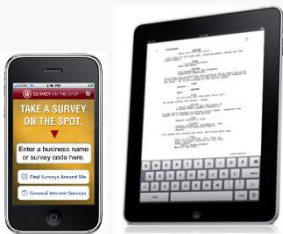
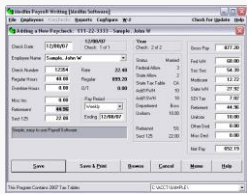
Issues	Tools
Heterogeneous population	Modes tailored to size 
Several surveys to complete	Web portal 
Ongoing relationship	Preloading Feedback 
Retrieval from different information sources	Divide surveys by topics?
Response burdens	Multimedia? 
	Conversational approach 



Communication Modes Tailored to Size



- Automatic Data Capture
 - For large and stable data deliveries
 - Complemented by Metadata Questionnaires
- Web Questionnaires administered in Web Portals
 - Administrative tool for the survey coordinator (including access management)
 - Questionnaires designed according to information sources and listed according to deadlines and completion status
- TDE/Smart phone/iPad options
 - For small businesses or small questionnaires
 - For zero reporting
 - Mixed Mode Designs



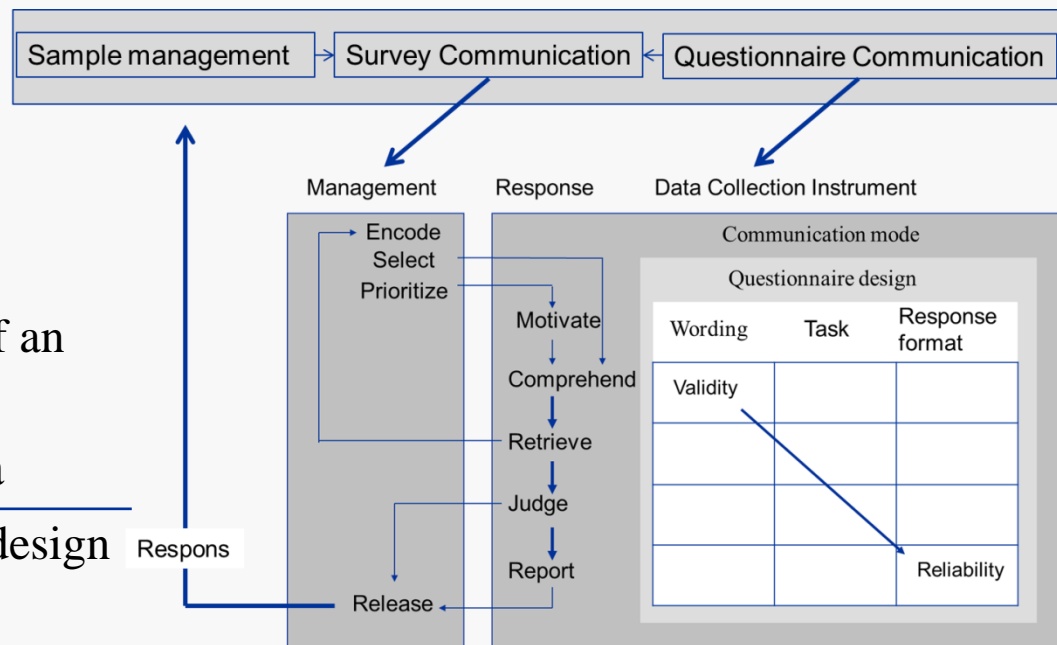
- “Interviewer” assisted Self Administration
 - “Interviewers” during development
 - “Interviewers” to motivate
 - Help desk staffed by “interviewers”



Summary

1. A mixture of units to identify
2. The management sets the frame within which the questionnaire operates
3. The respondent = coordinator of an internal data collection
4. Recorded data \neq Requested data

5. Questionnaire = \int (text + visual design + functionality)
6. Web questionnaires offer:
 - a) Multimode
 - b) Multimedia
 - c) Conversational approach
 - d) An administrative tool



*Thank you for your attention
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