

The Design of the Iran Tracer Study

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1. Definition of the Target Population
2. Type of survey: Cross-Sectional or longitudinal (Panel)
3. Ad-hoc or Regular survey
4. Census or Sample Survey
5. Methods of Data Collection
6. How to contact the Graduates
7. Cooperation and Organisation

OUTLINE

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1. DEFINITION OF THE TARGET POPULATION

Which Graduates Should be Included?

- Those who finished their study during a certain period (→ **cohort of graduates**)
 - Cohort of graduates not cohort of beginners
 - Similarity of learning experiences
 - Similarity of labour market conditions at the time of graduation
 - Only one cohort of graduates

Only One Cohort to Avoid Heterogeneity

- Most of the Tracer Studies focus on just one rather homogenous group of students/trainees who finished their study at the same time point (= "generation" or "graduation cohort")
- Such group is called a "cohort", e.g. graduates of the (academic) year 2014 or generation 2014
- Results of tracer studies with a mix of cohorts are very difficult to interpret
- Rate of returned questionnaires are lower for older cohorts (problem of heterogeneity)
- Employment outcomes are depending very much on the duration of work experiences after graduation (human capital heterogeneity)

Time of the Survey: About Two Years After Graduation

- If graduates are asked too short after graduation they cannot provide meaningful information about employment and work
 - Six months after is too early
 - Many graduates might still be in the process of job search
 - At least one year after graduation can be recommended
- If graduates are asked too late after graduation they cannot provide meaningful information about the transition process

Definition of Target Population

Graduates of the Academic Year 2015 (9/2014-8/2015)

Time of data collection: 09/2017 to 12/2017

	2015												2016												2017																										
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																						
End of study	X																																																		
Minimum month after graduation		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28																						
Data collection phase																																																			

X = Date of graduation/end of study/final examination

Key Design Elements of Graduate Tracer Study Systems in Europe

Country/survey	Number of cohorts	Time after graduation	Regularity
Germany - KOAB	one	1.5 years after 5 years after	Every year
Germany - DZHW	one	1 year after 5 years after 10 years after	Every 4 years
France - CEREQ	one	3 years after	Every 3 years
Italy - ISTAT	one	3 years after	Every 3 years
Italy - AlmaLaurea	one	1 years after 3 years after 5 years after	Every year
Netherlands	one	1 year after	Every year
Switzerland	one	2 years after	Every 2 years
Norway	one	6 months after	Every 2 years

2. TYPE OF SURVEY: CROSS-SECTIONAL OR LONGITUDINAL (PANEL)

Type of Survey

- Cross sectional
 - Snap-shot
 - Graduates are asked only once
 - Change over time of aggregates (trend)
- Longitudinal or panel
 - The same graduates are asked more than once
 - Change over time of individuals can be measured
 - Shorter questionnaires

Longitudinal or Panel Survey

The Same Persons are Asked Several Times



Example: Cross Sectional Graduate Survey at one Time Point

Graduate survey 5 years after graduation

Content of the questionnaire: about 300 to 600 variables

A. Socio-demographic information

B. Course of study

C. Competences at time of graduation

D. Transition to employment and further education

E. Employment and work requirements in the first job

F. Professional success

G. Work tasks and competences

H. Context factors

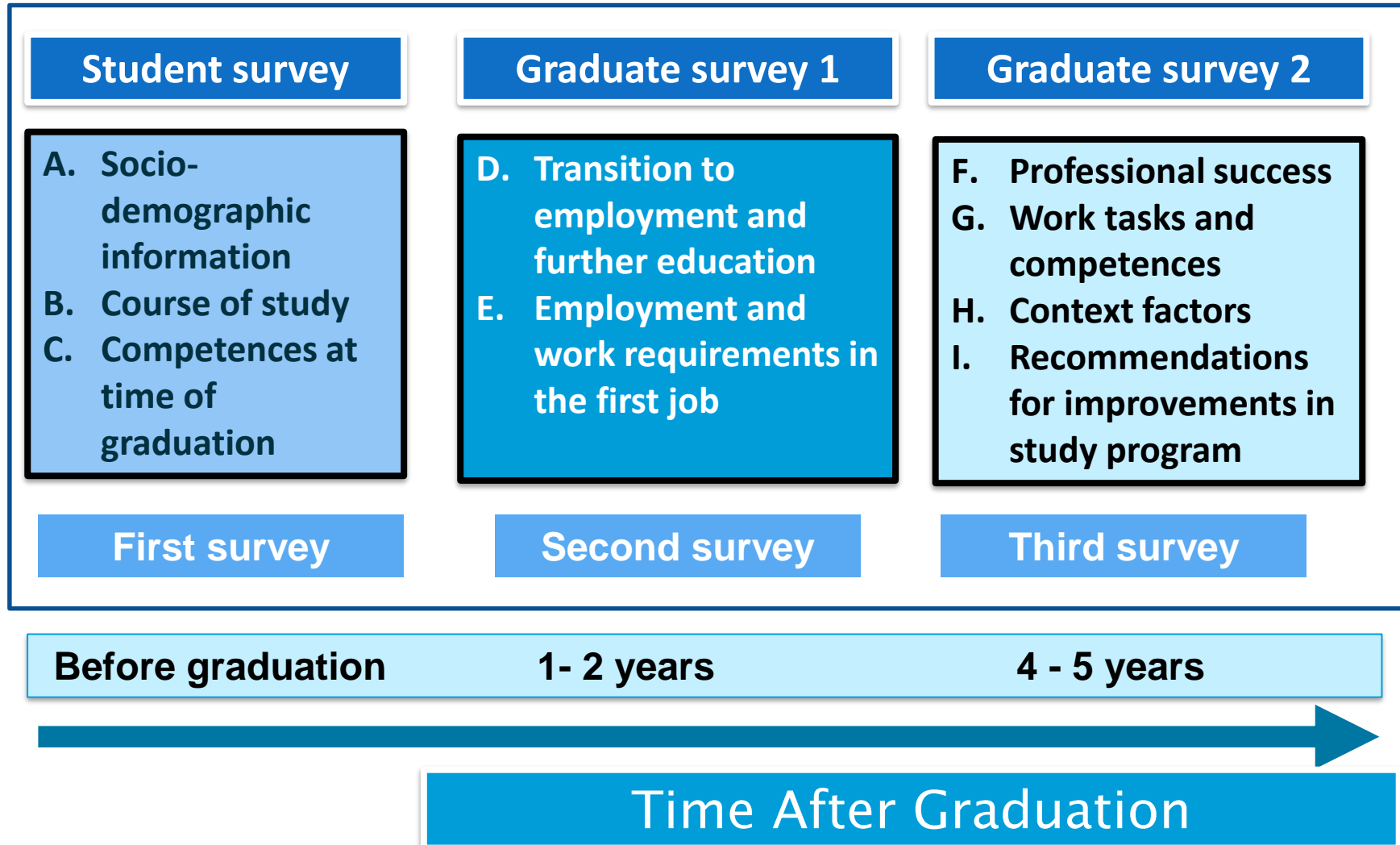
I. Recommendations for improvements of study program

Many retrospective questions

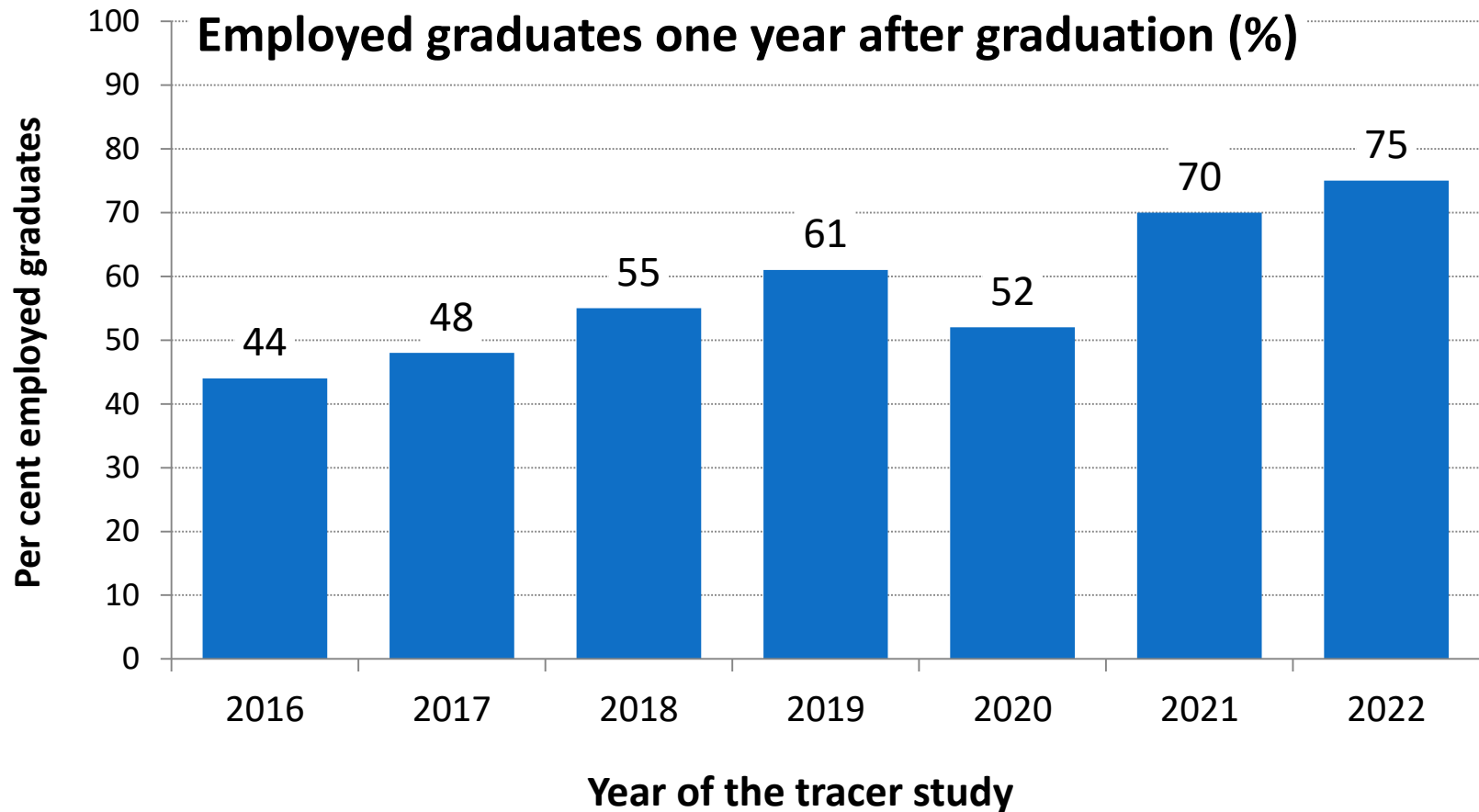
Time After Graduation

Example of Longitudinal Surveys with the Same Graduates at Three Time Points

Longitudinal design: only 100 variables in one survey



Trend – Comparison of Cohorts Over Time (fictive data)



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3. AD-HOC OR REGULAR SURVEY

Ad-hoc Survey and Regular Survey

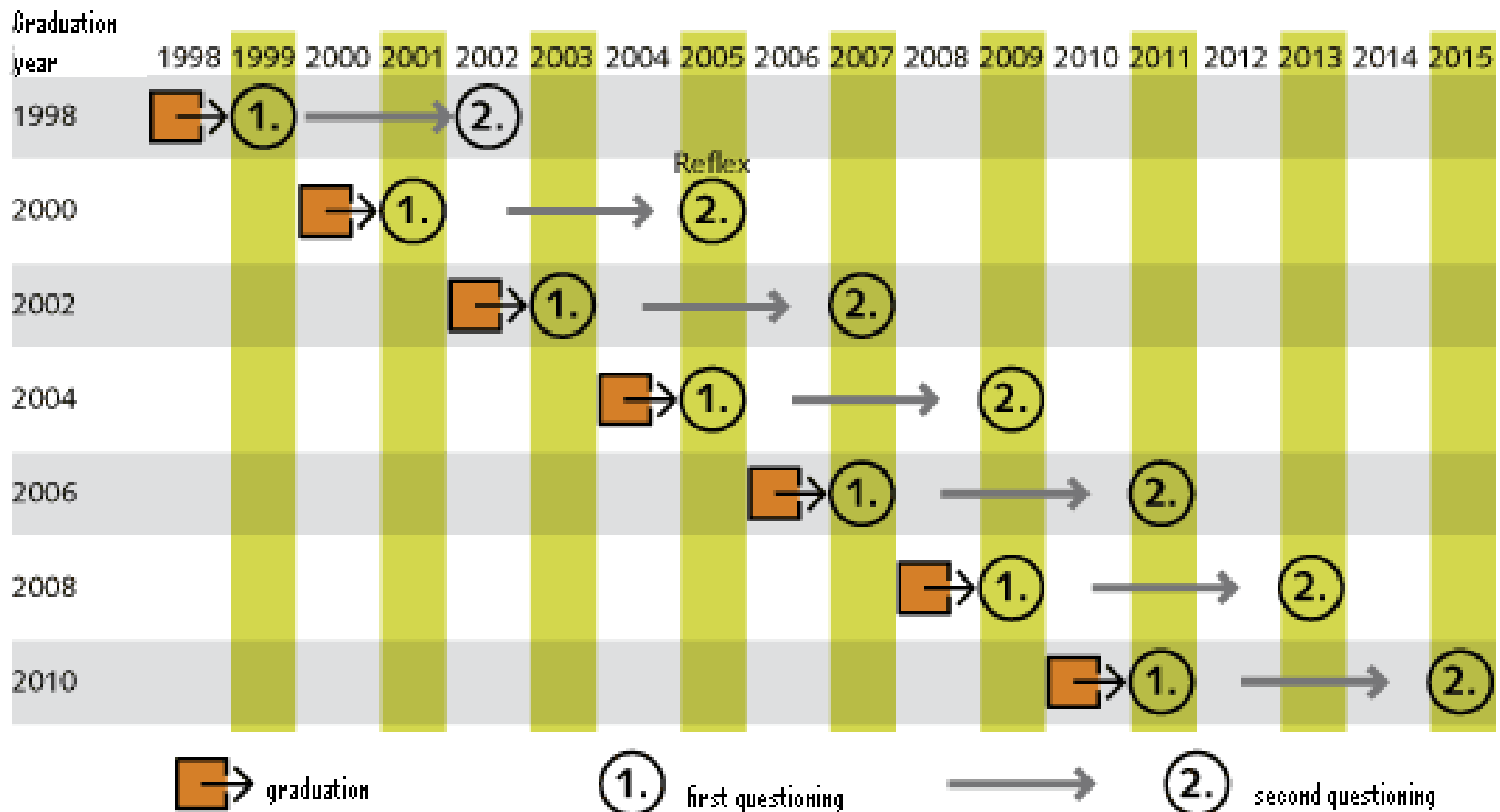
- Ad-hoc survey
 - Single survey
 - Related to specific needs
 - 'As and when' required
 - Not repeated with the same concept/design
- Regular Survey
 - A survey conducted regularly
 - E.g. every year
 - Same concept/design
 - Similar definition of target population
 - Same questionnaire
 - Same methods of data collection

Advantages of Yearly Tracer Studies

- Development of routines
- Availability of trained personell
- Possibilities of matching the data from two or more surveys to have enough cases for analysis
- Trend is soon visible
 - Effects of improvements
- Quick correction of errors (e.g. wrong questions)

The Swiss Tracer Study System: Every Second Cohort + Panel After 5 Years

Graduates Survey Design



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4. CENSUS OR SAMPLE SURVEY?

The Tracer Study should be a Census, not a Sample Survey

- All graduates of the cohort 2015 should be invited to participate
- High numbers are needed in order to differentiate the results by study programme
- Most simple method – no sampling necessary

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5. METHODS OF DATA COLLECTION

Methods of Data Collection

- Written standardized questionnaires
- 85 questions; 226 variables
- International standards with adaptations to Iran
- **Online survey (QTAFI software), if possible**
- Self-administered paper questionnaires
- Personal delivery of questionnaires (if needed)
- Telephone interviews (if needed)

Disadvantages of Online Surveys

1. Technical problems (e.g. server, internet access, speed)
2. Less standardisation possible (e.g. browser, laptop, smartphone)
3. Higher Drop-Outs (e.g. Lurkers)
4. Combination with paper questionnaires creates new problems – method bias

Advantages of Online Surveys

1. Dramatic reduction of costs
 - No layout and printing of questionnaires
 - No data entry
 - (Postal costs)
2. Less staff needed
 - No data entry
3. Much faster results
 - First results after one week
4. Higher response rate
 - Filter; shorter questionnaire; customized

Recommended Data Collection Method: Online Survey

- Online questionnaires is now the most used survey instruments
- No negative effect on the response rate
- No indications of well defined refuser groups
- Data quality seems to be the same

Tracer studies: Number of Variables and Method of Data Collection

Tracer Study	Number of variables	Data collection
U.S. NACE (2014)	About 3 - 20	Different methods
Namibia NCHE (universities; 2014)	About 300	Online
Germany (KOAB network; 2015)	500	Online
CHEERS (international graduate survey; 1999)	600	Paper
REFLEX (international graduate survey; 2005)	400	Online + paper

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6. HOW TO CONTACT THE GRADUATES

Aspects of Survey Implementation

- **Address database** of the TVET/HE institution
- **Update of addresses** by TVET/HE institution
- **Four contacts/send outs** (three reminders)
- Contacts by letters and/or email
- Only online questionnaire?
- Response rate should be at least 30%

Address database (1)

- Name, addresses (own and parents), emails and phone numbers
- Personal data from education statistics:
 - Gender
 - Age
 - Subject
 - Degree
 - Grade
 - Study duration
- **IMPORTANT** to check representation of respondents

Address database (2)

- Use of a database is recommended
- Keep track of all contacts
 - Date of first delivery
 - Date of second delivery, if any
 - Date of third delivery, if any
 - Date of forth delivery, if any
- Source of addresses
- Update status
- Date of returned questionnaire

Methods of Tracing Graduates

- Institutional records
- National registers
- Alumni Association
- Employers records
- Mass media
- Internet (Facebook, etc.)
- Personal homepage
- Snowball technique

Snowball technique can be used, if no address is available

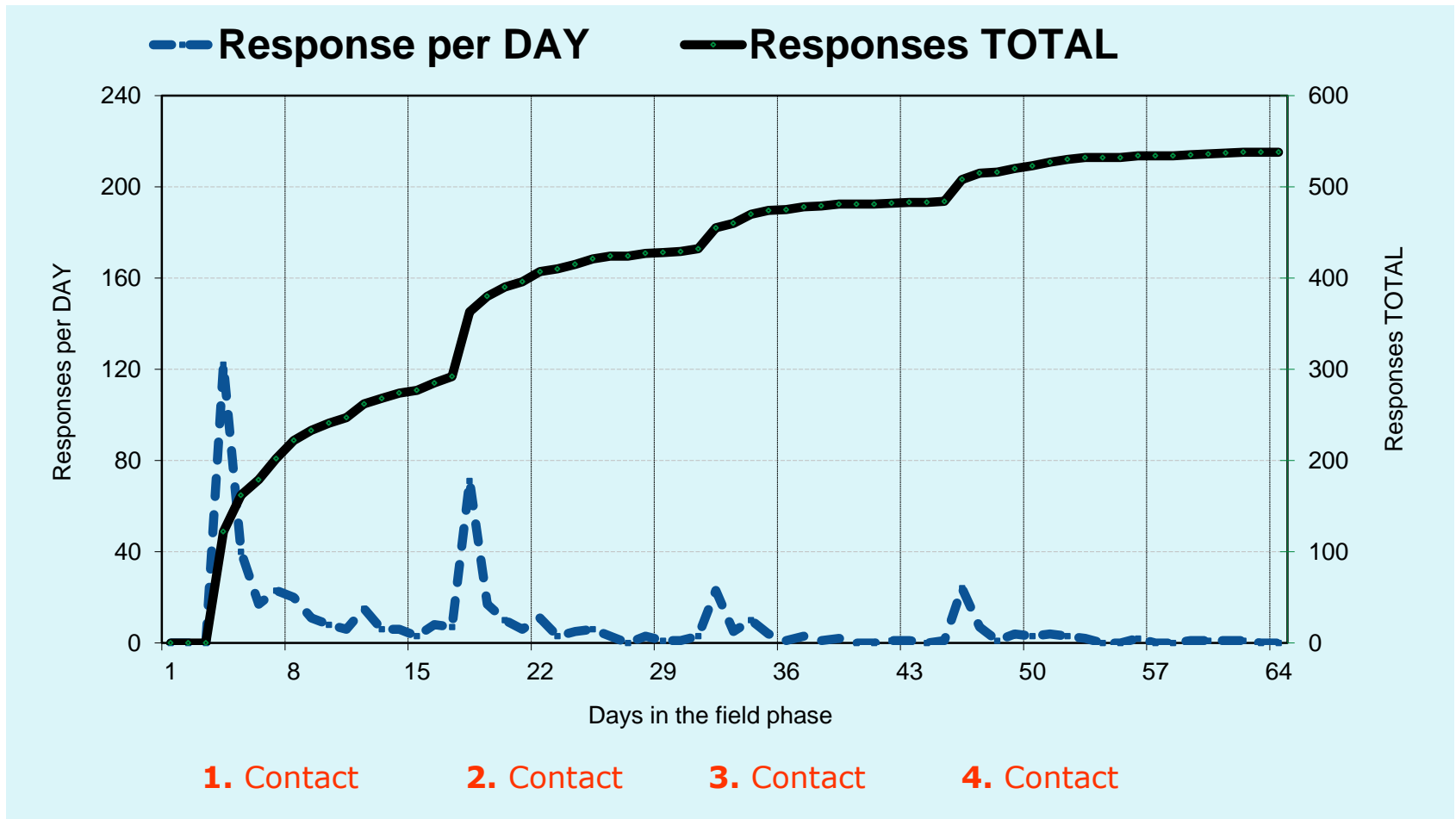
- Every graduate should provide addresses of three others
- The new addresses are used to update the address database
- → Long duration of field phase

Four contacts (= three reminders)

1. Invitation letter with link to the online questionnaire and a PIN; information about the Iran Tracer Study; paper questionnaire
2. First reminder: Invitation letter with link to the online questionnaire and a PIN + offer to send a paper questionnaire again, if asked for
3. Second reminder: Invitation letter with link to the online questionnaire + paper questionnaire
4. Third reminder: Invitation letter with link to the online questionnaire

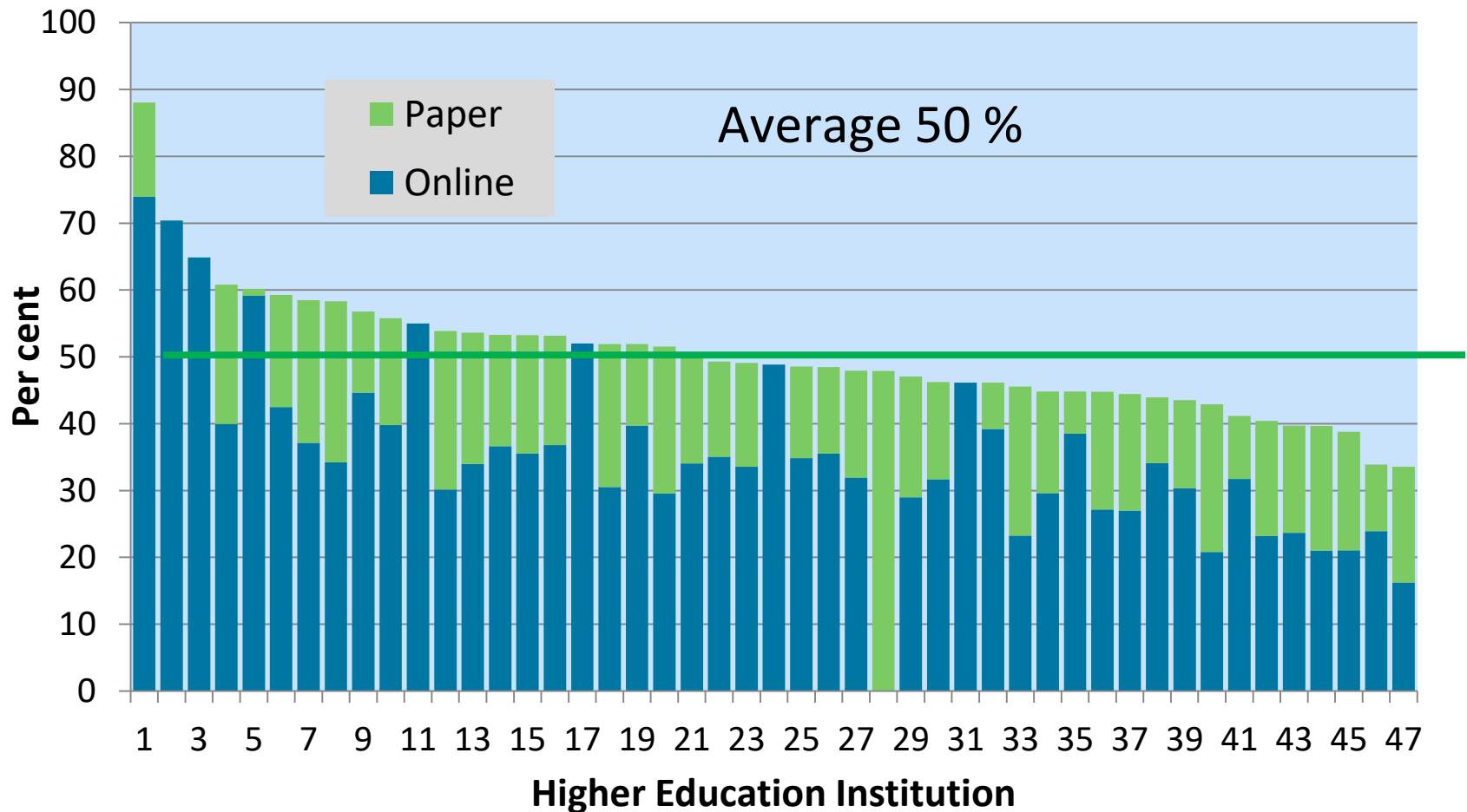
The Effects of Reminders

Response Statistics of a German University (KOAB network)



Example of a Mixed Mode Survey

Response Rate of the KOAB (German Network) Survey 2009,
by Higher Education Institution (%)



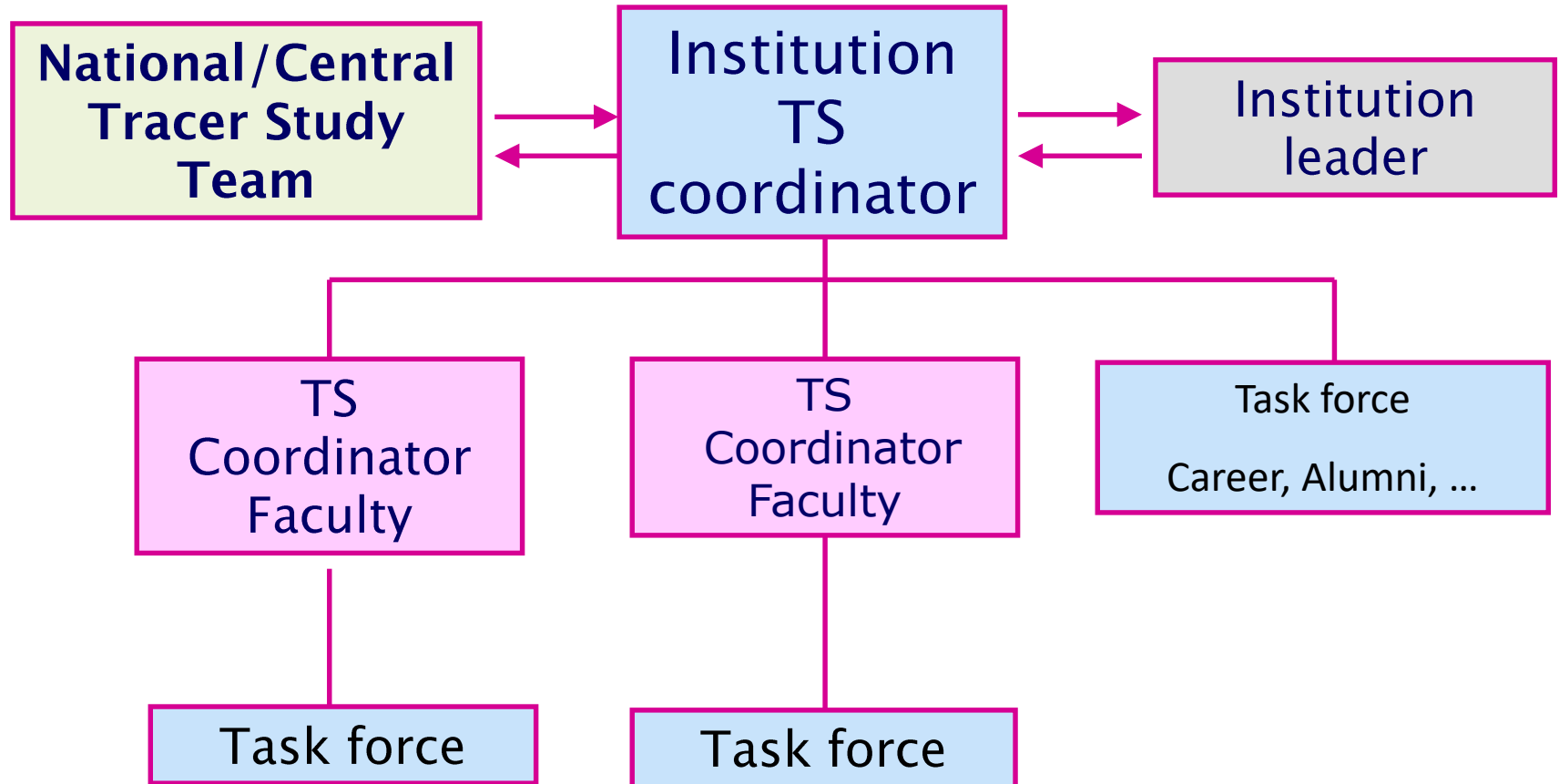
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7. COOPERATION AND ORGANISATION

Co-operation of TEVET and HE Institutions

- Comparability
- To learn from others
- To establish the exchange of methodological experiences
 - How to get a high response rate?
- One questionnaire with adaptations to individual needs

Aspects of the Organisation



Tasks of the National Tracer Study Team

- Advice for TVET/HE institutions in all phases of the project
- Training workshops
- Material for institutions (e.g. invitation letters, questionnaire)
- Data entry and data cleaning
- Data analysis
- Delivery of the cleaned data for every TVET/HE institution („own data“)
- Integration of the TVET/HE institution data into one comparable data file; table reports for each HE institution
- Analysis and reporting about the overall findings (without identification of the individual TVET/HE institution)
- Publication of scientific report and training materials

**THANK YOU VERY MUCH
FOR YOUR ATTENTION**