STATISTICAL RESEARCH METHODS

International inter-university postgraduate interdisciplinary doctoral study ENTREPRENEURSHIP AND INNOVATIVENESS

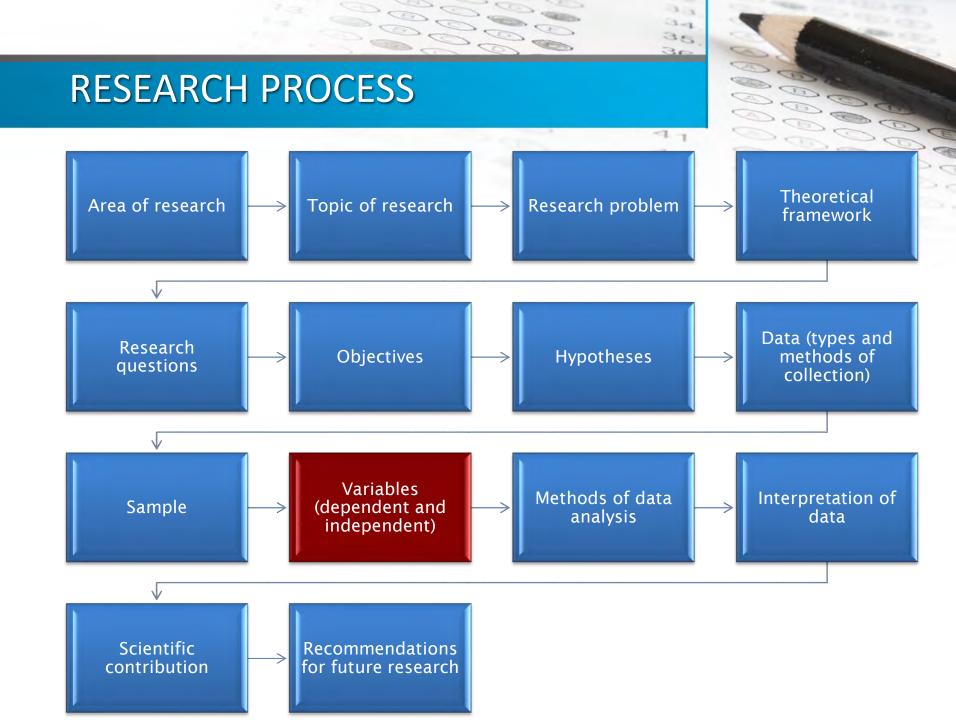**Jasna Horvat, Ph.D.**

Josipa Mijoč, Ph.D.

RESEARCH PROCESS

Area of research	→ Topic of research	→ Research problem	→ Theoretical framework

Research questions	→ Objectives	→ Hypotheses	→ Data (types and methods of collection)

Sample	→ Variables (dependent and independent)	→ Methods of data analysis	→ Interpretation of data

Scientific contribution	→ Recommendations for future research

VARIABLES

- Hight, weight, salary, length
  - Variables
- Success, viewpoint, pleasure
  - Concepts

- Concepts
  - mental representations and are typically based on experience
    - the meanings vary among the respondents
  - measured concept = variable

Example

- Concept:
  - Choice of tourist destination
- Variable
  - one of 17 statement
  - Rate the importance of service quality in restaurants when you are choosing tourist destinations (grade from 1 to 5)
    - 1 fully unimportant
    - 2 unimportant
    - 3 neither unimportant or important
    - 4 important
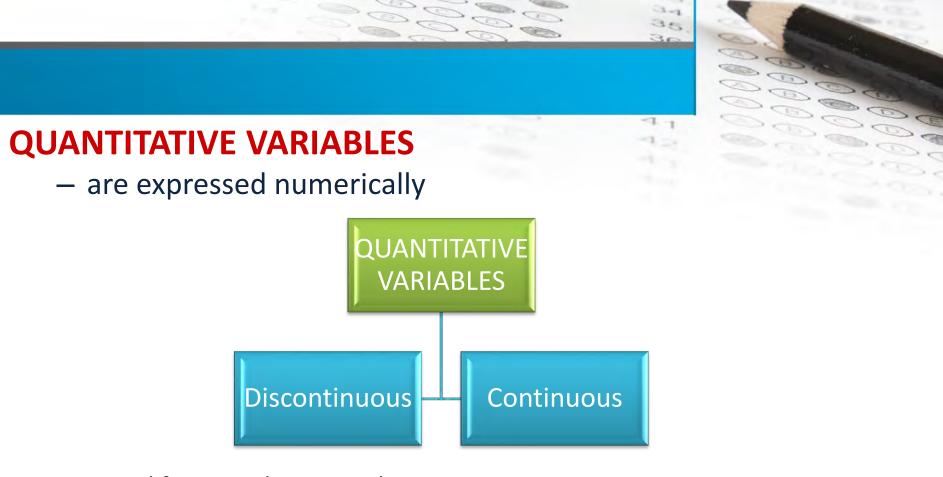   - 5 fully important

Variables

- properties or characteristics of people/object that vary in quality or magnitude from person to person or object to object
  - *a variable must vary* (e.g., not be a constant)
- entity that can take on a variety of different values
  - eg.
    - demographic characteristics
    - personality traits
- must be measurable
  - enabled comparability

Types of variables

QUALITATIVE VARIABLES
– Narrative data

- gender
- religion
- city of birth
- eye color
- marital status
- level of education
- ...

QUANTITATIVE VARIABLES
— are expressed numerically

```
QUANTITATIVE
VARIABLES
```
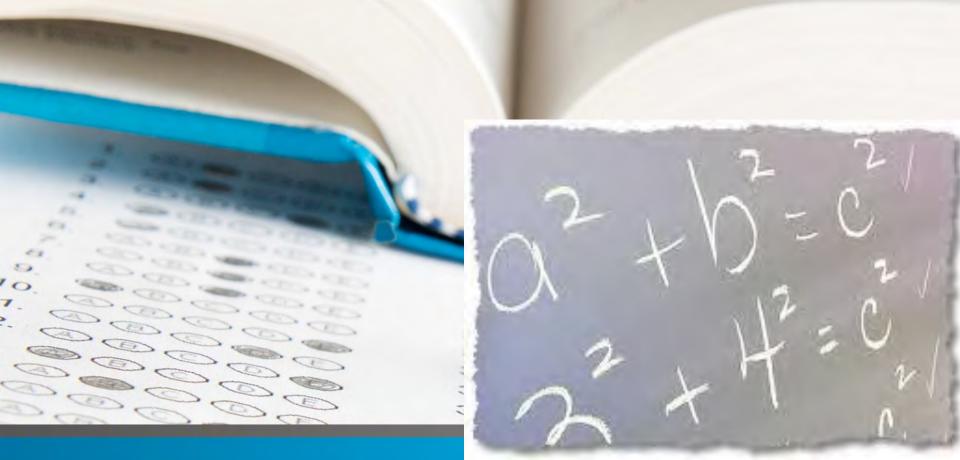
```
Discontinuous        Continuous
```

Numerical features that can only be expressed by the **INTEGER** and which can obtain the finite number of properties
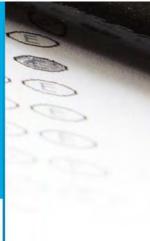
Numerical features that can be expressed by the **INTEGER and DECIMAL NUMBER.** The values are within the interval determined by counting.

Important when choosing variables

- Level of measurement

- Dependent and independent

- Items or concept

Research Variables

Variables can be:

- Dependent and independent

- Independent variable
  - the variable that is **manipulated** either by the researcher or by nature or circumstance
    - what is tested
    - what is manipulated

Variables can be:

- Dependent variable
  - a variable that is ***observed or measured*** and that is influenced or changed by the independent variable
  - dependent variable is also known as "criterion" variable
    - what is observed
    - what is measured
    - the data collected during the investigation

Example

- Dependent variable: export
- Independent variables: preference of european consumers, price of competitors product, tariff rate, subventions, quality of management

Example

Variables:

- Dependent variable: Self-employment intentions (measurement construct)
- Independent variables: motivation for achievement (measurement instrument), higher education (study course, perception of formal education - measuring construct), theory of planned behavior (attitudes, subjective norms, perceived control of behavior), demographic (control) variables (gender, experience in the family business)
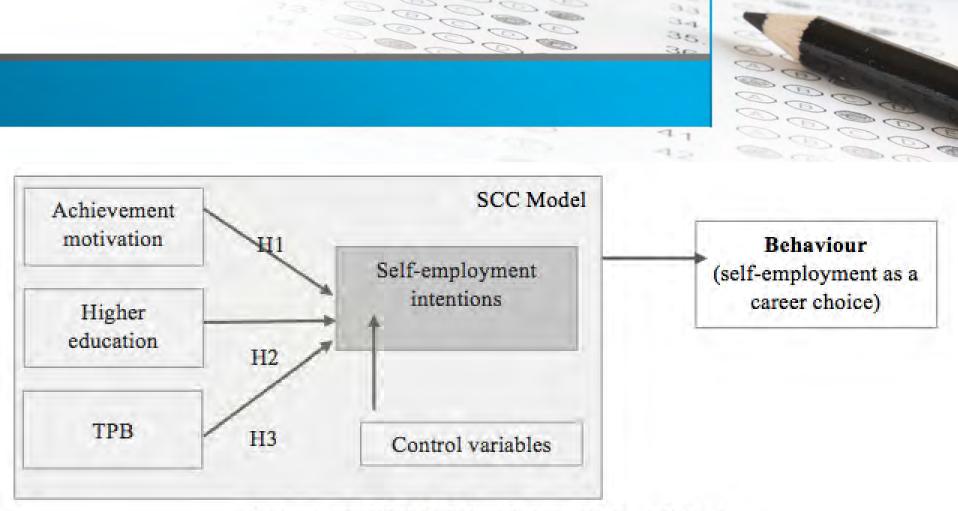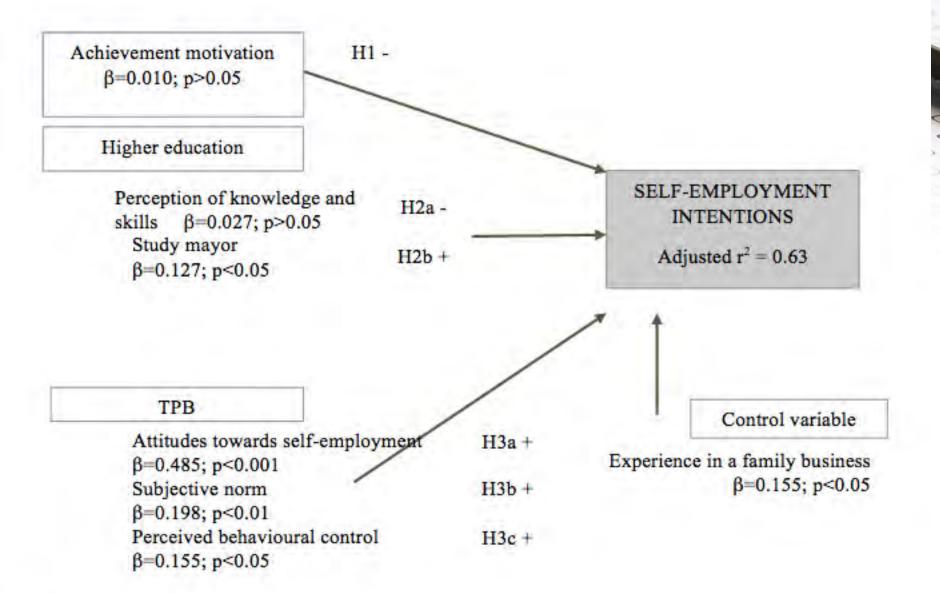
Figure 1. SCC Model and research hypotheses

Figure 2. SCC Model

- How to measure and evident data?

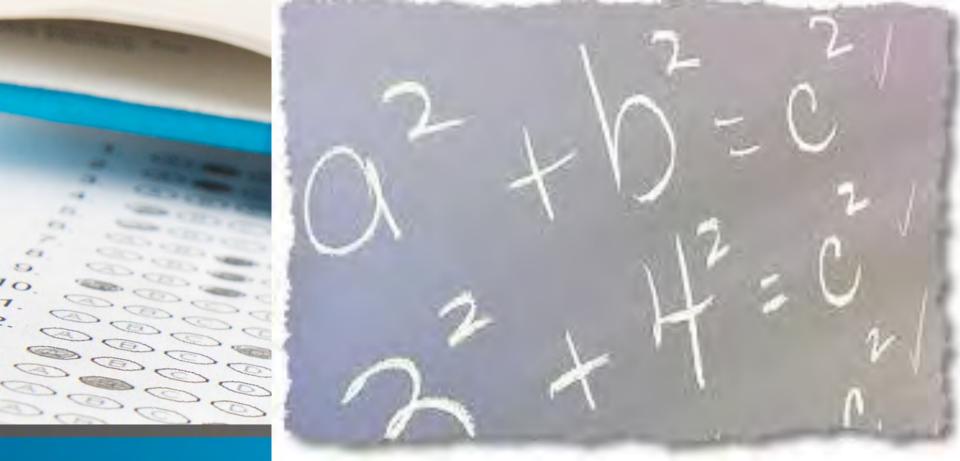- How can you find out some information about my employment status?

- Ask me ☺

Measurement

- The standardized process of assigning numbers, marks to certain features of the objects, cases or situations of interest according to pre-determined rules, procedure and instruments
- The procedures used to quantify quantitative procedures
- Scale
  - measuring "tool"

Measurement scale

- ## Main component of each questionnaire
  - Items and measuring scales

Important !!

Levels of Measurement

- Attributes have properties that are similar to numbers.

  - Nominal   QUALITATIVE DATA
  - Ordinal
  - Interval   QUANTITATIVE DATA
  - Ratio

Nominal scale

- Data categories are represented by labels or names
- Even when the labels are numerically coded, the data categories have no logical order
  - Eye color, gender, religious affiliation

(a = b)

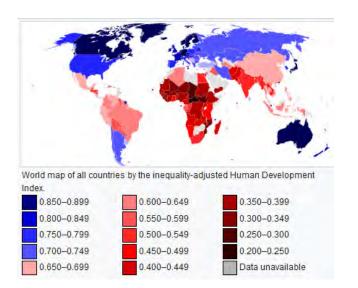| Gender	Respondents
Female	60
Male	40
Total	100

Is it permissible to say: Our sample is on the average woman?

Examples

- Answers in the questionnaire
  - Yes, no, I don't know
- Eye colors:
  - Blue, green, brown …

Ordinal scale

- Data classification are represented by sets of labels or names (high, medium, low) that have relative values

    - Data can be classified

        - Rank-order data

World map of all countries by the inequality-adjusted Human Development Index.

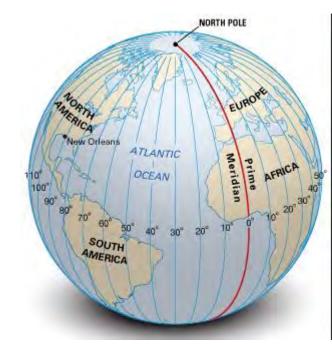|		
0.850–0.899	0.600–0.649	0.350–0.399
0.800–0.849	0.550–0.599	0.300–0.349
0.750–0.799	0.500–0.549	0.250–0.300
0.700–0.749	0.450–0.499	0.200–0.250
0.650–0.699	0.400–0.449	Data unavailable

$$(a > b, a < b, a = b)$$

Interval scale

- we know the order and exact differences between the value

- distance between numbers on scale are equal $(a - b)$

- they don't have a "true zero"

  - relative 0

Methodological issue:

Statement:

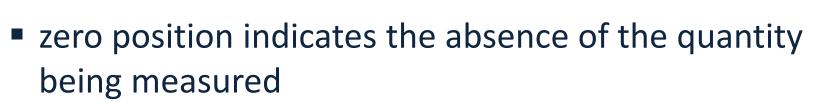Design of product XY is very appealing to me.

- 1 I completely disagree
- 2 I disagree
- 3 nor do I agree nor do I disagree
- 4 I agree
- 5 I completely agree

- Options on the previous scale have the same interval, "distance"?
  - Ordinal sale?
  - Interval scale?
    - Do we know the differences between modalities?

Ratio scale
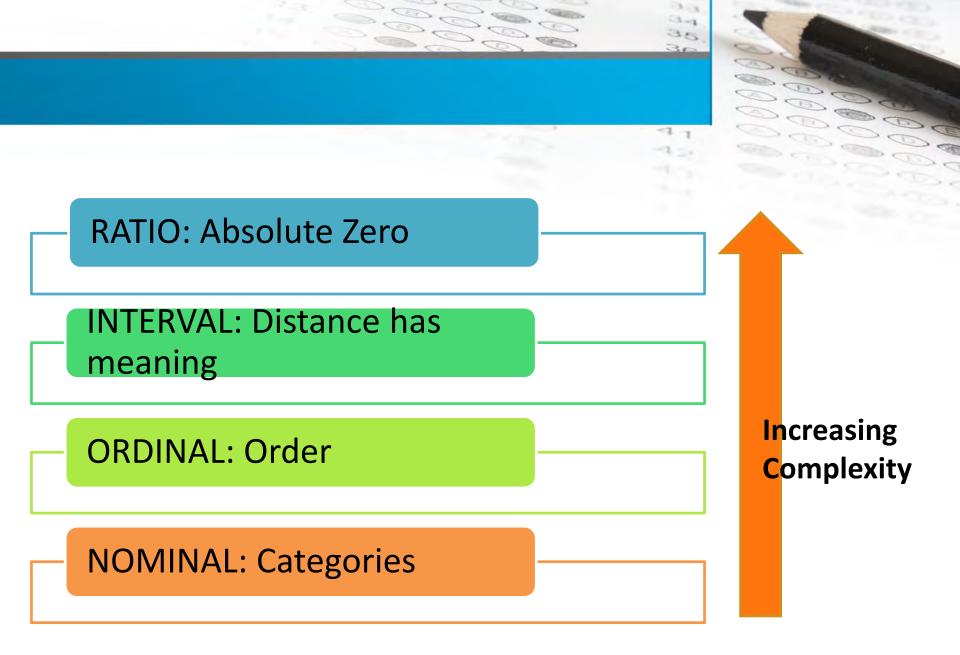
- **most informative scale**

- absolute zero
  - zero position indicates the absence of the quantity being measured

(a / b)

RATIO: Absolute Zero

INTERVAL: Distance has meaning

ORDINAL: Order

NOMINAL: Categories

Increasing Complexity

	Nominal	Ordinal	Interval	Ratio
Statistics				
Frequency distribution	+	+	+	+
Mean			+	+
Median		+	+	+
Mod	+	+	+	+
What is allowed				
Quantify the difference between each value			+	+
Add or substract value			+	+
Multiply and divide values				+
„True" zero				+

In SPSS

RATIO

INTERVAL

Scale

ORDINAL

NOMINAL
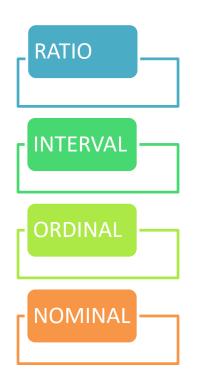
	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	ID	Numeric	4	0	Question Count	None	None	8	Right	Scale	Input
2	v1	Numeric	2	0	If you were able to choose between running your own bu...	{1, I would r...	None	8	Right	Scale	Input
3	v2	Numeric	5	2	Evaluate the likelihood that you will become a self-empl...	None	None	8	Right	Scale	Input
4	v3	Numeric	2	0	I cannot imagine working for someone else.	{1, complet...	None	8	Right	Scale	Input
5	v4	Numeric	2	0	The idea of my own business is very attractive	{1, complet...	None	8	Right	Scale	Input
6	v5	Numeric	2	0	To work in my own company would be a personal satisfa...	{1, complet...	None	8	Right	Scale	Input
7	v6	Numeric	2	0	In the next 5 years I will start my own business.	{1, complet...	None	8	Right	Scale	Input
8	v7	Numeric	2	0	Have your parents (at least one of them) ever started a c...	{1, yes}...	None	8	Right	Nominal	Input
9	v7a	Numeric	2	0	Generally looking, how do you assess your parents' expe...	{1, positivel...	None	8	Right	Nominal	Input
10	v8a	Numeric	2	0	How much have you learned about the following areas o...	{1, I haven't...	None	8	Right	Scale	Input
11	v8b	Numeric	2	0	How much have you learned about the following areas o...	{1, I haven't...	None	8	Right	Scale	Input
12	v8c	Numeric	2	0	How much have you learned about the following areas o...	{1, I haven't...	None	8	Right	Scale	Input
13	v8d	Numeric	2	0	How much have you learned about the following areas o...	{1, I haven't...	None	8	Right	Scale	Input
14	v8e	Numeric	2	0	How much have you learned about the following areas o...	{1, I haven't...	None	8	Right	Scale	Input
15	d1_gender	Numeric	2	0	Gender	{1, male)...	None	8	Right	Nominal	Input
16	d2_year	Numeric	4	0	Year of birth	None	None	8	Right	Scale	Input
17	d3_high_sc...	String	36	0	Finished high school	None	None	8	Left	Nominal	Input
18	d4_major	Numeric	2	0	What is your major:	{1, financial...	None	8	Right	Nominal	Input
19	d5_status	Numeric	2	0	You are:	{1, full-tim...	None	8	Right	Nominal	Input
20	d6_years_st...	Numeric	8	2	How many years are you studying at the faculty?	None	None	8	Right	Scale	Input
21	d7_standard	Numeric	2	0	How would you assess the standard of living in your hou...	{1, standard...	None	8	Right	Ordinal	Input
22	d8_sn_F	Numeric	8	0	Which of the following social networks are you using - F...	None	None	8	Right	Nominal	Input
23	d8_sn_L	Numeric	8	0	Which of the following social networks are you using - Li...	None	None	8	Right	Nominal	Input
24	d8_sn_T	Numeric	8	0	Which of the following social networks are you using - T...	None	None	8	Right	Nominal	Input
25	d8_sn_G	Numeric	8	0	Which of the following social networks are you using - G...	None	None	8	Right	Nominal	Input
26	d8_sn_I	Numeric	8	0	Which of the following social networks are you using - I...	None	None	8	Right	Nominal	Input
27	d8_sn_other	Numeric	8	0	Which of the following social networks are you using - O...	None	None	8	Right	Nominal	Input
28	d8_sn_none	Numeric	8	0	Which of the following social networks are you using - N...	None	None	8	Right	Nominal	Input
29	course_entre	Numeric	8	2	Course of study - entrepreneurship	{1.00, cours...	None	11	Right	Nominal	Input
30	v2_career	Numeric	8	2	How likely is it that you will pursue a career of a self-e...	{1.00, not l...	None	15	Right	Nominal	Input

Assignment

- Questionnaire: Self employment intetntions
  - Define measurement level

RATIO

INTERVAL

ORDINAL

NOMINAL

Scales of Measurement

- Nominal Scale: Categories, labels, data carry no numerical value

- Ordinal Scale: Rank ordered data, but no information about the distance between ranks

- Interval Scale: Degree of distance between scores can be assessed with standardly sized intervals

- Ratio Scale: Same as interval scale with an absolute zero point.

RESEARCH PROCESS

Area of research	→	Topic of research	→	Research problem	→	Theoretical framework

Research questions	→	Objectives	→	Hypotheses	→	Data (types and **methods of collection**)

Sample	→	Variables (dependent and independent)	→	Methods of data analysis	→	Interpretation of data

Scientific contribution	→	Recommendations for future research

Methodological approach

Choice of Methodology & Methods

- Depends on
  - Research Questions
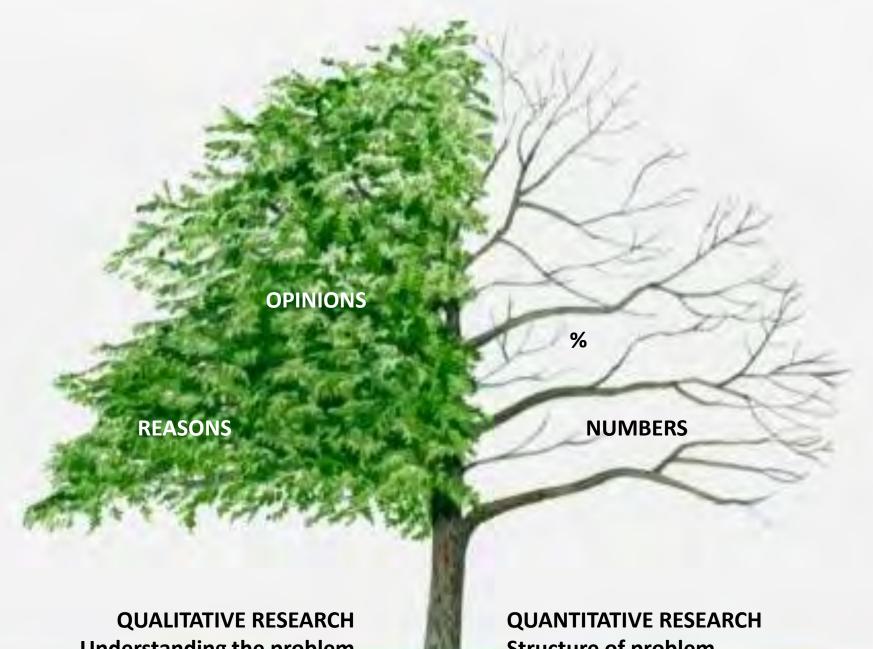 - Research Goals
  - Researcher Beliefs and Values
  - Researcher Skills
  - Time and Funds

Methodological approach

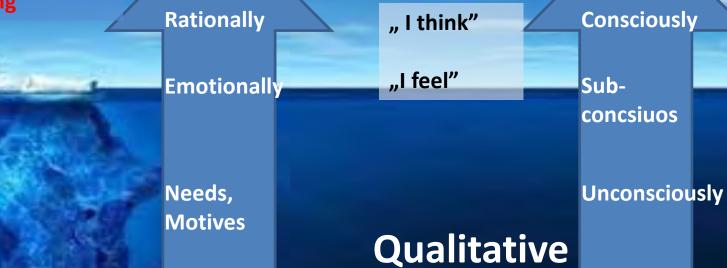- Quantitative research

- Qualitative research

- Multi-strategy research

OPINIONS

%

REASONS

NUMBERS

QUALITATIVE RESEARCH
Understanding the problem

QUANTITATIVE RESEARCH
Structure of problem

Research questions: Difference between quantitative and qualitative research

- QUAN research have *hypothesis*, QUAL do not;
- QUAN research are consisted of measuring variables, QUAL research do not use the term "variable";
- QUAN research *examine* theory, QUAL research develop theory;
- QUAN research identify variables and measuring instruments before collecting data, do not change questions and hypothesis, in QUAL research, research questions can be changed

Quantitative methodology

- Advantages:
  - Extensively research
  - Larger number of examinees
    - generalization of research findings
  - Objectivity and accuracy of results
  - Using standards in research
    - Repeating and comparison results of research
- Disadvantages:
  - In advance defined answers
    - Are they reflecting opinions of examinee about certain subject?
  - Do not indicate detailed explanation

Type	Methods	Techniques
1. Library Research	(i) Analysis of historical records	Recording of notes, Content analysis, Tape and Film listening and analysis.
	(ii) Analysis of documents	Statistical compilations and manipulations, reference and abstract guides, contents analysis.
2. Field Research	(i) Non-participant direct observation	Observational behavioural scales, use of score cards, etc.
	(ii) Participant observation	Interactional recording, possible use of tape recorders, photo graphic techniques.
	(iii) Mass observation	Recording mass behaviour, interview using independent observers in public places.
	(iv) Mail questionnaire	Identification of social and economic background of respondents.
	(v) Opinionnaire	Use of attitude scales, projective techniques, use of sociometric scales.
	(vi) Personal interview	Interviewer uses a detailed schedule with open and closed questions.
	(vii) Focused interview	Interviewer focuses attention upon a given experience and its effects.
	(viii) Group interview	Small groups of respondents are interviewed simultaneously.
	(ix) Telephone survey	Used as a survey technique for information and for discerning opinion; may also be used as a follow up of questionnaire.
	(x) Case study and life history	Cross sectional collection of data for intensive analysis, longitudinal collection of data of intensive character.
3. Laboratory Research	Small group study of random behaviour, play and role analysis	Use of audio-visual recording devices, use of observers, etc.

KOTHARI, Chakravanti Rajagopalachari. *Research methodology: Methods and techniques*. New Age International, 2004: 7

QUESTIONAIRE

HOW TO COLLECT QUATITATIVE DATA?

Introductory questions to you about your research:

1. What do we see?

2. How do we understand what we see?

3. How to interpret what we understood that we see?

What makes a good questionnaire?

1. Make possible to collect the necessary information. Ask "right questions".

2. Design it in the way the respondent thinks.

3. Make it easy (and logical) to enter and "clean up" the data.

Questionnaire vs. survey

- Questionnaire
  - written set of questions
  - describes content
- Survey
  - broader term that describes content, method, and analysis
  - set of questions and the process of collecting, aggregating, and analyzing the responses from those questions

Types of surveys

- Cross-sectional surveys:
  - Data collected at one point in time selected to represent a larger population.

- Longitudinal surveys:
  - Trend:
    - Surveys of sample population at different time points.
  - Cohort:
    - Study of sample population each time data are collected but samples studied maybe different.
  - Panel:
    - Data collection at various time points with the same sample of respondents

Questionnaire

- Helpful tool for collecting a **wide range of information** from a **large number of respondents**
  - general characteristics of a population
  - to compare attitudes of different groups
  - to test theories

- The process of developing a questionnaire involves several steps, starting with problem definition and ending with analysis and interpretation

- **Instrument of standardization**

Steps in the design of the questionnaire

1. List of information and hypotheses
2. Choice of questionnaire type and methods of data collection
3. The content of the questions
4. Question type
5. Formulate each individual question
6. Order of questions
7. Reviewing all previous steps and corresponding changes
8. Testing of the questionnaire and modify if necessary

1. List of information and hypotheses

- Description of the information you want to get with the questionnaire

  - **Theoretical background of the questionnaire**

  - Formulation of a research problem

  - Research plan

- Establishing hypotheses that need to be verified

Examples of hypotheses

H1: Croatian companies are familiar with the concept of socially responsible business

H2: Large companies, on average, accept and apply the concept of Corporate Social Responsibility in business rather than small companies

H3: Croatian companies are socially responsible to a large degree

H4: Companies that are more socially responsible perform better financial results

Basic types of questionnaires

- Structured (with predefined responses / confined questions)

- Unstructured (with total freedom in responses / open questions)

Data collection methods

- By post
- By telephone
- In person
- By e-mail
- On-line

3. The content of the questions

- Content question/statement = variable/items
- List of required and precisely defined variables
- Analysis of similar research
  - Theoretical background of research

  - Consult the scientific background - articles in databases, questionnaire collections
    - e.g.
      - Bearden, Netemeyer, Mobley (1993): Handbook of Marketing scales, SAGE Publications

Handbook of
Marketing Scales

Multi-Item Measures for Marketing
and Consumer Behavior Research

THIRD EDITION

William O. Bearden
University of South Carolina

Richard G. Netemeyer
University of Virginia

Kelly L. Haws
Texas A&M University

Ethnocentrism: Consumer Ethnocentrism: CETSCALE

(Shimp and Sharma 1987)

Construct:
The CETSCALE is designed to measure consumers' ethnocentric tendencies (i.e., disposition to act in a consistent fashion) related to purchasing foreign- versus American-made products. Consumer ethnocentrism represents the beliefs held by consumer about the appropriateness, indeed morality, of purchasing foreign-made products (Shimp and Sharma 1987, p. 280). The purchase of foreign-made products, in the minds of ethnocentric consumers, is wrong because it hurts the domestic economy, causes loss of jobs, and is unpatriotic.

Description:
The scale consists of 17 items scored on 7-point Likert-type formats (*strongly agree* =7, *strongly disagree* = 1). Item scores are summed to form an overall score ranging from 17 to 119. In its original form, the scale was designed for use on American subjects, as most items contain reference to America or the United States. (A shortened 10-item version using a 5-place response format was also tested in the national consumer goods study described below.) Both versions are considered unidimensional.

Development:
Recommended scaling procedures were used in scale development. The CETSCALE was developed using an initial pool of 180 nonredundant items based on the common wording of responses from an open-ended elicitation study of 800 consumers. Following a judgmental screening of items by a panel of six academics, two purification studies were conducted to develop the final form of the scale. Initially, the development phase addressed seven facets of consumers' orientations toward foreign products. Common factor analysis of the data obtained in the first purification study reduced the item pool to 25 items reflecting the ethnocentrism dimension. From the second purification study, 17 items consistently demonstrated satisfactory reliability in a series of confirmatory factor analyses.

Samples:
The respondents were 407 households in the first study. The second study included approximately 320 households from each of three metropolitan areas (Detroit, Denver, Los Angeles) and 575 households from the Carolinas. Using some of these same data, four additional studies were conducted to assess reliability and validity of the scale: (a) four area studies, *n* = 1,535; (b) Carolinas study, *n* = 47; (c) national consumer goods study involving student subjects.

Validity:
The assessment of reliability and validity of the CETSCALE in the original article was stringent and extensive. Only a brief summary is provided here. Interested readers are advised to refer to Shimp and Sharma (1987) for details. Internal consistency estimates of reliability ranged from 0.94 to 0.96; test-retest was estimated at 0.77. Evidence of convergent and discriminant validity was provided by significant and positive correlations of the CETSCALE and measures of patriotism and political-economic conservatism. Extensive tests of nomological validity (in one instance over a 2-year delay) were also presented in support of the scale. Briefly, scale scores were found, as predicted, negatively correlated with varying measures of consumers' beliefs, attitudes, and intentions toward foreign-made products. Other data revealed that origin of manufacturer was more important for high scorers and that higher scorers were biased in favor of American products and in opposition to European and Asian products. Finally, tests of mean differences revealed that scores were highest among individuals whose quality of life and economic situation (and hardships) are threatened by foreign competition (i.e., lower social classes, Detroit respondents).

Mean scores (std. dev.) for the CETSCALE for the four geographic areas followed a predicted pattern: (a) Detroit, 68.58 (25.96); (b) Carolinas, 61.28 (24.41); (c) Denver, 57.84 (26.10); (d) Los Angeles, 56.62 (26.37). The mean scores for the two-phase student sample used in the crafted-with-pride study resulted in mean scores of 51.92 (16.37) and 53.39 (16.52). Scores also were found to decline predictably across three social classes: upper-lower, 73.63; lower-middle, 64.01; and upper-middle, 51.91.

Shimp, Terence A. and Subhash Sharma (1987), "Consumer Ethnocentrism: Construction and Validation of the CETSCALE." *Journal of Marketing Research*, 24, 280–89.

© 1987 by the American Marketing Association. Scale items taken from Table 1 (p. 282). Reprinted with permission.

Evidence:
In a validation study, Netemeyer, Durvasula, and Lichtenstein (1991) used student samples of 71, 73, 70, and 76 from colleges in the United States, Germany, France, and Japan, respectively. Netemeyer et al. (1991) reported alpha levels ranging from 0.91 to 0.95 across the four countries studied. In addition, the CETSCALE was correlated with a number of behavioral measures reflecting a consumer ethnocentric bias. Across countries, these correlations offered evidence of nomological validity for the scale. In a more recent study by Sharma, Shimp, and Shin (1995), the 17-item CETSCALE showed an internal consistency estimate of 0.91. The CETSCALE also showed significant correlations with the social-psychological constructs of openness, $r = -0.21$; patriotism/conservatism, $r = 0.53$; and collectivism, $r = 0.18$ and $r = -0.23$, and with the demographic characteristics of education, $r = -0.25$, and income, $r = -0.15$. The CETSCALE was also shown to be a significant predictor of attitude toward importing various products and perceived economic threat (in regression analyses). The Sharma et al. (1995) study used a sample of 667 Korean consumers.

Sources:
Netemeyer, Richard G., Srinivas Durvasula, and Donald R. Lichtenstein (1991), "A Cross-National Assessment of the Reliability and Validity of the CETSCALE," *Journal of Marketing Research*, 28, 320–27.

Sharma, Subhash, Terence A. Shimp, and Jeongshin Shin (1995), "Consumer Ethnocentrism: A Test of Antecedents and Moderators," *Journal of the Academy of Marketing Science*, 25 (1), 26–37.

Ethnocentrism: Consumer Ethnocentrism: CETSCALE

(Shimp and Sharma 1987)

1. American people should always buy American-made products instead of imports.

2. Only those products that are unavailable in the U.S. should be imported.

3. Buy American-made products. Keep America working.

4. American products, first, last and foremost.

5. Purchasing foreign-made products is un-American.

6. It is not right to purchase foreign products.

7. A real American should always buy American-made products.

8. We should purchase products manufactured in America instead of letting other countries get rich off us.

9. It is always best to purchase American products.

10. There should be very little trading or purchasing of goods from other countries unless out of necessity.

11. Americans should not buy foreign products, because this hurts American business and causes unemployment.

12. Curbs should be put on all imports.

13. It may cost me in the long run but I prefer to support American products.

14. Foreigners should not be allowed to put their products on our markets.

15. Foreign products should be taxed heavily to reduce their entry into the U.S.

16. We should buy from foreign countries only those products that we cannot obtain within our own country.

17. American consumers who purchase products made in other countries are responsible for putting their fellow Americans out of work.

Note: Items composing the 10-item reduced version are items 2, 4 through 8, 11, 13, 16, and 17.

Items scored on 7-point Likert-type scales from *strongly agree* to *strongly disagree*.

17 items rated at the seven-degree Likert scale (1- completely disagree, 7 – completely agree)

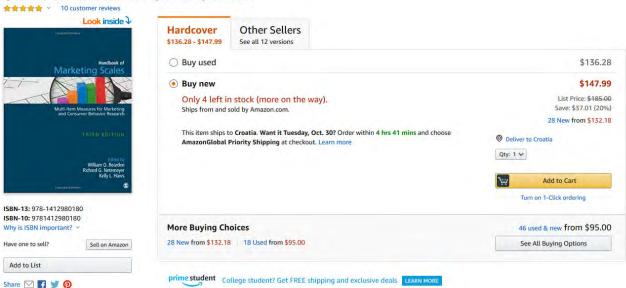**Shorter version of 10 items (5-degree Likert scale)**

Other examples

Handbook of Marketing Scales: Multi-Item Measures for Marketing and Consumer Behavior Research (Association for Consumer Research) Third Edition

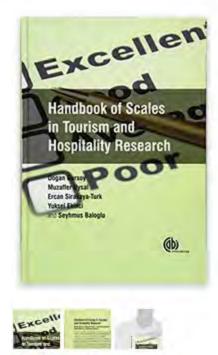by William O. Bearden ˅ (Editor), Richard G. Netemeyer (Editor), Kelly L. Haws (Editor)

★★★★★ ˅   10 customer reviews

Look inside ↓

ISBN-13: 978-1412980180
ISBN-10: 9781412980180
Why is ISBN important? ˅

Have one to sell?   Sell on Amazon

Add to List

Share ✉ 🔲 🐦 📌

| **Hardcover** | **Other Sellers** |
| $136.28 - $147.99 | See all 12 versions |

○ Buy used $136.28

◉ **Buy new**   **$147.99**

Only 4 left in stock (more on the way).   List Price: ~~$185.00~~
Ships from and sold by Amazon.com.   Save: $37.01 (20%)

                                                                    28 New from $132.18

This item ships to **Croatia. Want it Tuesday, Oct. 30?** Order within **4 hrs 41 mins** and choose   ⊙ Deliver to Croatia
AmazonGlobal Priority Shipping at checkout. Learn more

                                                                    Qty: 1 ˅

                                                                    🛒 Add to Cart

                                                                    Turn on 1-Click ordering

---

More Buying Choices   46 used & new from $95.00

28 New from $132.18   18 Used from $95.00   See All Buying Options

prime student   College student? Get FREE shipping and exclusive deals   LEARN MORE

Other examples

Handbook of Scales in Tourism and Hospitality Research Hardcover – February 20, 2015

by Dogan Gursoy (Author), & 4 more

Be the first to review this item

> See all 3 formats and editions

Hardcover
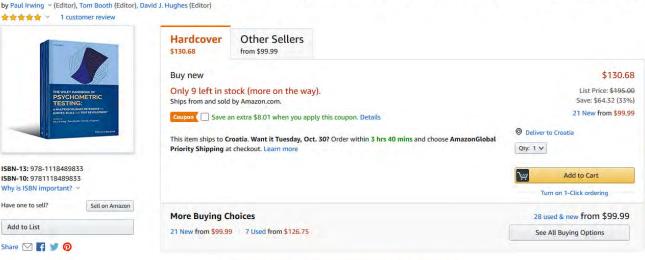**$151.67**

12 Used from $164.17
19 New from $138.96

As the field of tourism and hospitality experiences maturity and scientific sophistication, researchers need to fully understand the breadth and depth of existing scales that help explain, understand, monitor, and predict not only behavior but also consequences of such behavior as a function of demand and
‹ Read more

Other examples

The Wiley Handbook of Psychometric Testing, 2 Volume Set: A Multidisciplinary Reference on Survey, Scale and Test Development 1st Edition

by Paul Irwing ∨ (Editor), Tom Booth (Editor), David J. Hughes (Editor)

★★★★★ ∨   1 customer review

ISBN-13: 978-1118489833
ISBN-10: 9781118489833
Why is ISBN important? ∨

Have one to sell?   Sell on Amazon

Add to List

Share ✉ 📘 🐦 📌

Hardcover	Other Sellers
$130.68	from $99.99

Buy new

Only 9 left in stock (more on the way).
Ships from and sold by Amazon.com.

Coupon ☐ Save an extra $8.01 when you apply this coupon. Details

This item ships to **Croatia**. **Want it Tuesday, Oct. 30?** Order within **3 hrs 40 mins** and choose **AmazonGlobal Priority Shipping** at checkout. Learn more

$130.68

List Price: $195.00
Save: $64.32 (33%)

21 New from $99.99

◉ Deliver to Croatia

Qty: 1 ∨

🛒 Add to Cart

Turn on 1-Click ordering

More Buying Choices

21 New from $99.99 | 7 Used from $126.75

28 used & new from $99.99

See All Buying Options

prime student   College student? Get FREE shipping and exclusive deals   LEARN MORE

A must-have resource for researchers, practitioners, and advanced students interested or involved in psychometric testing

Over the past hundred years, psychometric testing has proved to be a valuable tool for measuring personality, mental ability, attitudes, and much more. The word 'psychometrics' can be translated as 'mental measurement'; however, the implication that psychometrics as a field is confined to psychology is highly misleading. Scientists and

4. Types of questions

- Open questions
- Closed questions

Open questions (Open-ended)

- Very non-existent, easy to set up, expensive to analyze
    - When the answers of the respondents cannot be predicted
    - When the respondent is not forced to answer
    - To find knowledge without reminding
    - To track trends
    - To bring in confined answers
    - To get to information that would otherwise slip by
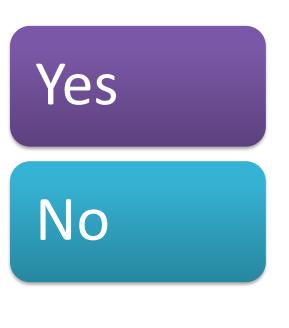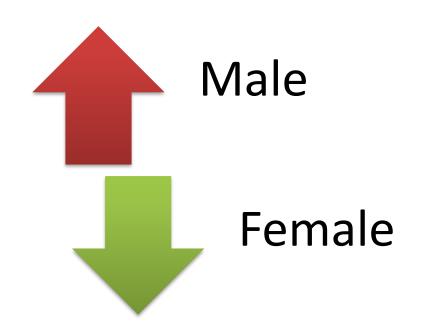
What do you like the most about a festival?

_____

_____

_____

Types of closed questions

- Dichotomic or multiple choice
  - Based on the measuring scale
    - Closed (no order) - nominal scale
    - Closed (order) - ordinal scale
    - Interval scale
    - Ratio scale
- Filter questions or questions of circumstance

Dichotomous questions
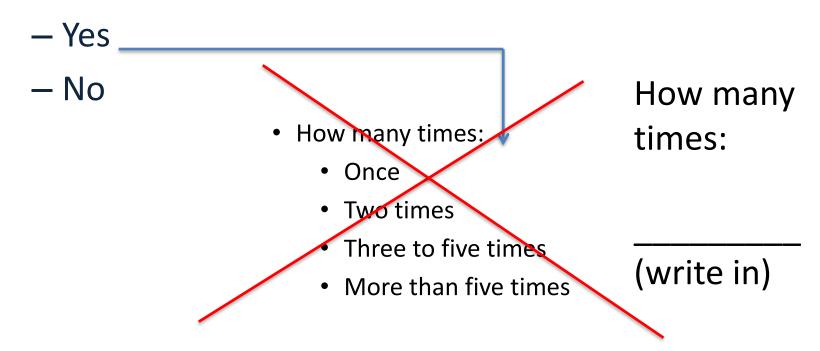
Yes

No

Male

Female

Filter questions

- Have you ever been in Croatia?
  - Yes
  - No

    - How many times:
      - Once
      - Two times
      - Three to five times
      - More than five times

Filter questions

- Have you ever been in Croatia?
  - Yes
  - No

- How many times:
  - Once
  - Two times
  - Three to five times
  - More than five times

How many times:

_____
(write in)

Filter questions

- Try to avoid more than three levels (three "jumps" for each of the filter questions)

- If there are only two levels, use the graphic symbol for the "jump" tag (arrow and box)

- If possible, set jump to the new page

Nominal scale in the questionnaire
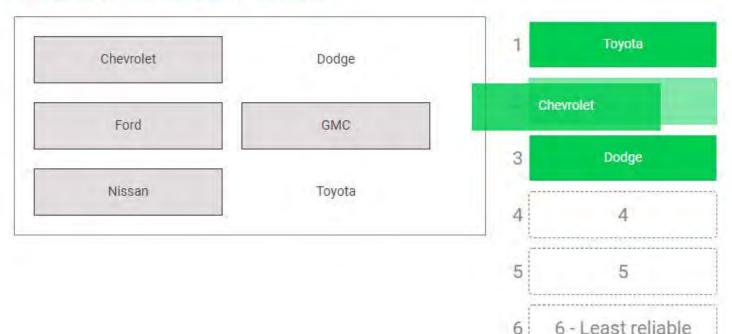
- Religious affiliation
  - Buddhist
  - Hindu
  - …
  - …

Ordinal scale in the questionnaire

Please rank the following truck manufacturers in order of reliability, where the "most reliable" is ranked first and the "least reliable" is ranked last.

Click or drag each item into a rank position.

Chevrolet		Dodge
	Ford	GMC
	Nissan	Toyota

1. Toyota
   Chevrolet
3. Dodge
4. 4
5. 5
6. 6 - Least reliable
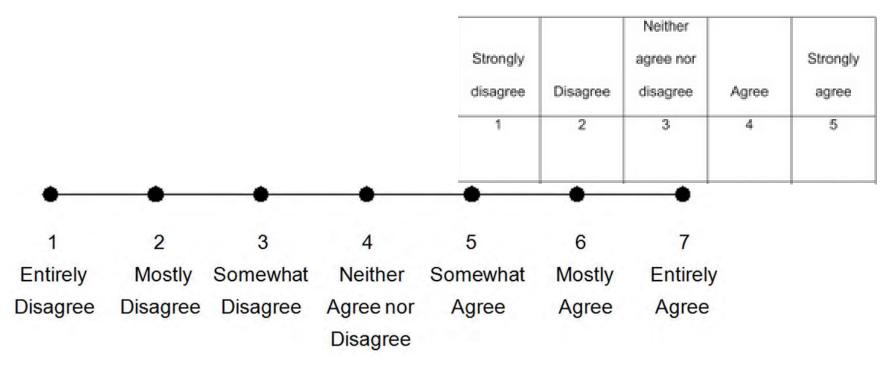
- Ranking fast food companies
- The Degree of completed formal education
- Countries by the level of development

Interval scale in the questionnaire

- Most used

  - **Likert scale**

- Five to seven items are usually

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	1	2	3	4	5

1	2	3	4	5	6	7
Entirely Disagree	Mostly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Mostly Agree	Entirely Agree

Likert scale

- most commonly used in measuring the attitude
- for each item, respondents choose (one of several offered) modalities
  - they express the degree of agreement or disagreement
    - » complete agreement, consistency, indecision / neutrality, disagreement, complete disagreement
    - The respondent opinion expresses the sum of the points (that is, the name of the summative scale)
      - the greater the sum - the more positive is the respondent's opinion towards the measurement object

For each **statement** please check where you would rate it on the range

The quality of the lectures is more important than the number of lessons held.

1 – I completely disagree

2 – I disagree

3 – nor I agree, nor I disagree

4 – I agree

5 – I completely agree

Tourist motivations scale

1. For each statement please check where you would rate it on the range, from Strongly disagree (1) to Strongly agree (7). *

	1	2	3	4	5	6	7
I like to be able to talk about the places I've visited and things I've seen while traveling	O	O	O	O	O	O	O
When I go home, I tell everybody about my travels	O	O	O	O	O	O	O
I like to talk about my travel when I get back home, to relive it	O	O	O	O	O	O	O
While travelling, I attend cultural events that I don't have access to at home	O	O	O	O	O	O	O
I like to visit foreign cultures	O	O	O	O	O	O	O
I like to see how other people live	O	O	O	O	O	O	O
While travelling, I like to do same things that people there do, as in 'When in Rome, do as the Romans do'	O	O	O	O	O	O	O

Likert scale

	Extremely unlikely	Unlikely	More or less unlikely	Neutral	More or less likely	Likely	Extremely likely
Product A	○	○	○	○	○	○	○
Product B	○	○	○	○	○	○	○
Product C	○	○	○	○	○	○	○
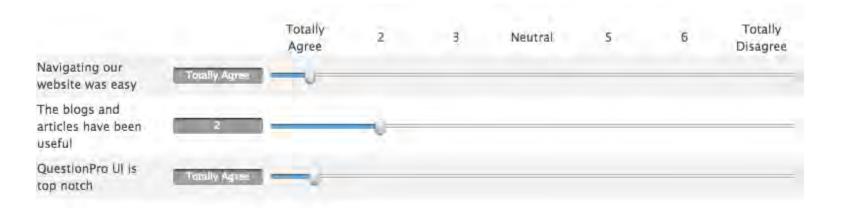
1 Strongly disagree	2	3	4	5	6	7	8	9	10 Strongly agree
○	○	○	○	○	○	○	○	○	○

	Totally Agree	2	3	Neutral	5	6	Totally Disagree
Navigating our website was easy	Totally Agree						
The blogs and articles have been useful	2						
QuestionPro UI is top notch	Totally Agree						

Response Set	1	2	3	4	5
Frequency	Never	Rarely	Sometimes	Often	Always
Quality	Very poor	Poor	Fair	Good	Excellent
Intensity	None	Very mild	Mild	Moderate	Severe
Agreement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Approval	Strongly disapprove	Disapprove	Neutral	Approve	Strongly approve
Awareness	Not at all aware	Slightly aware	Moderately aware	Very aware	Extremely aware
Importance	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Familiarity	Not at all familiar	Slightly familiar	Moderately familiar	Very familiar	Extremely familiar
Satisfaction	Not at all satisfied	Slightly satisfied	Moderately satisfied	Very satisfied	Completely satisfied
Performance	Far below standards	Below standards	Meets standards	Above standards	Far above standards

Ratio scale

- Daily traffic

- Age

- Student weight

- The number of passed exams

- ...
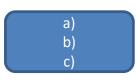
Is it always about the questions?

.	• Statement
?	• Question
a) b) c)	• Multiple set items
____	• Open

5. Formulate each individual question

- A poorly formulated question may result in a measurement error
- Question wording
  - No more than 20 words and 3 commas
  - Each question and word are necessary and do not overlap each other
  - Avoid unpolite / multiple meanings
    - Where do you live?
    - They might, they could, they should
  - Specific enough, but not too much
    - Do you always try to be fair?
  - At the same time, do not put two concepts into question, and avoid the conjugates
    - Are you beautiful and wise?

Formulating questions

- Short and concrete
- Simple sentences
- Careful use of potentially unpleasant issues
- Avoid multiple dimensions (rather ask more questions)
- Determine the place and time of the question, if necessary ...

Formulating questions - avoid

- Avoid positively / negatively oriented questions:
  - Did the affordable price of this product affect your purchase decision?
  - Do you not agree with the opinion of how …
  - Did the corrupt administration affect your decision about business fraud?
  - Do you know … how does everyone talk about (X)?
  - Answers like: best, beautiful, not so good, beautiful, cool, super …
- Can a respondent remember?
  - to avoid the effect of "excessive memory„
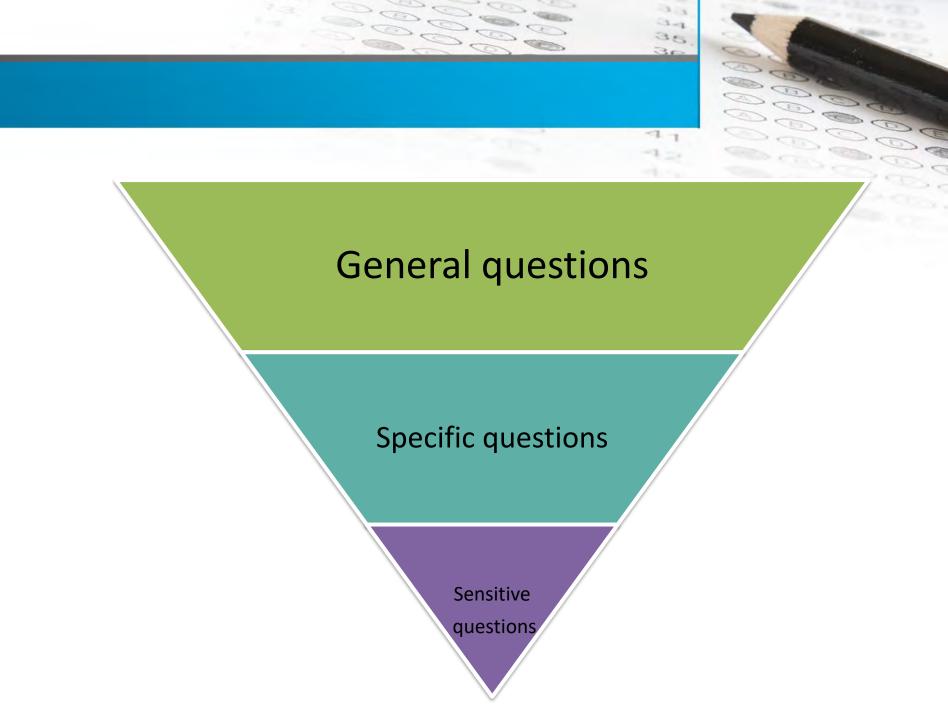
6. Order of questions

- Elements od questionnaire
  - Introduction
    - Presentation, an announcement of topics, application for participation
  - Selection of Screeners
    - is the respondent eligible for participation?

The questionnaire must be:

- Easy to conduct
  - (filling in, answering and administering)
- Have a funnel shape
  - Go from general to specific
- The structure of the questionnaire should not affect the answers
- Schedule the questions in the logical order

General questions

Specific questions

Sensitive questions

Begin with a question that will interest respondent for the survey

General and easy questions at the beginning

Difficult questions with demanding tasks for respondents put in the middle

Personal, sensitive and sociodemographic questions put at the end of the questionnaire

- Checking if questions are:
  - confusing,
  - ambiguous,
  - insulting,
  - biased,
  - possible,
  - repeated
  - logical course
- Corrections

- Reasons for testing the questionnaire:
  - The questionnaire meet the research objective?
  - Discovery of problematic issues
  - Can the respondents actively participate?
  - Question length?
  - Clarity of the tutor's instructions?
  - Unpredictable problems?
- Make the instructions and the thanks

Questionnaire adaptation

- **Process of questionnaire** adaptation

Adaptation process

- Coordinate:
  - language requirements
  - measurement requirements
  - the requirements of the last questionnaire verification
- Check:
  - reliability and validity of the metering scale

Any questions?

- Ask through questionnaire ☺

Individual assignment

- For currently planned doctoral thesis rethink:
  - To which group of participants could you send the questionnaire
  - Create a few questions (from 5 to 10)
  - Save questionnaire
    - Name_questionnaire.docx
  - Hand over at loomen or via e-mail

surveygizmo

explore consumer edition

surveygizmo enterprise

request demo   login »

platforms   solutions   pricing   features   services   resources

Talk to us: **1-800-609-6480**

Enterprise survey software for:

Experience, customer, product, and market research.

Experience the SurveyGizmo difference

SurveyGizmo

- Professional data collection tool
- Founded in 2006
- More than 300,000 users in 144 countries
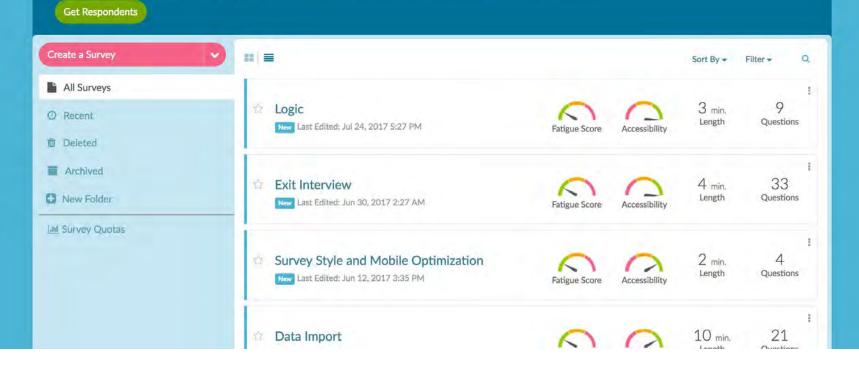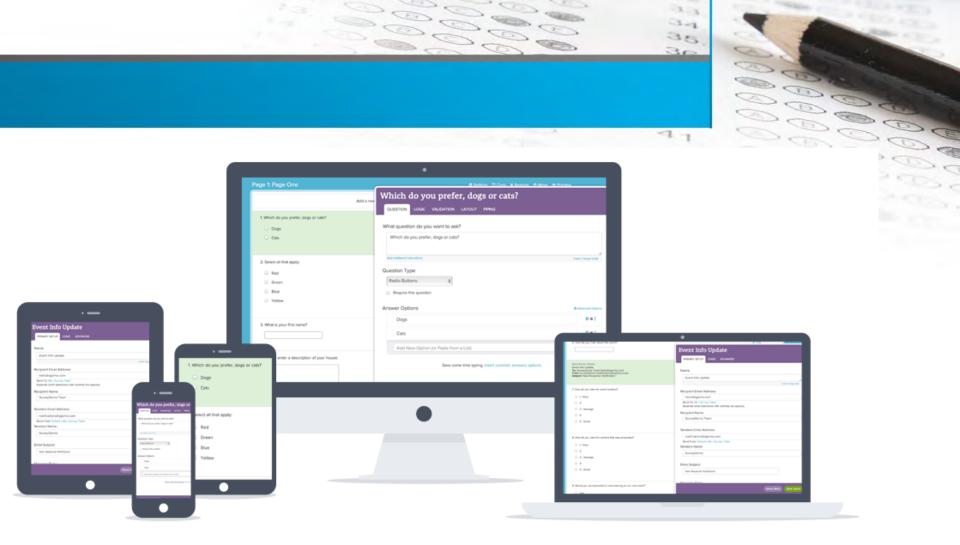
Functionalities (1)

Collect Any Kind of Data

Go far beyond multiple choice and collect exactly the data you need, from sentiments to contact information to file uploads.

40+ Question Types

From check boxes to open text, Likert scales to NPS, heat maps to conjoint. Each question is customizable in dozens of ways.

Custom Theme Builder

Create the exact look you need with pre-made survey themes–or design your own with the easy drag-and-drop theme builder and custom HTML/CSS.

Responsive Themes

Create online surveys that look just as good on mobile as they do on desktop. Surveys are all optimized for screen size, device, and operating system.

Survey Translations

Reach your audience wherever they are in the world. The software supports multiple languages and translations within the same survey project.

Branching & Skip Logic

Show only the questions and pages that matter to your respondents with easy to use advanced logic and branching for pages and even individual questions.

Functionalities (2)

Industry Leading Security
Your data is protected 365 days a year by anti-hacking measures, including redundant firewalls and continual security scans.

Unlimited Responses and Questions
Ask all of the questions you need to get the information you need. There are no additional charges for number of responses or survey length.

Data Analysis & Reporting
Standard and advanced reporting types like TURF, cross tabs, and comparison. Each generates presentation-ready reports with customized charts and graphs.

Support 7 Days A Week
With a robust documentation library, free webinars, engaged community, and email and chat support, our friendly survey experts are ready to help you. Our Service team is available online 7 days a week.

	FREE $0 / Month LEARN MORE GET STARTED	BASIC $25 / Month * Billed Annually LEARN MORE START A 7-DAY TRIAL	STANDARD $84 / Month * Billed Annually LEARN MORE START A 7-DAY TRIAL	MARKET RESEARCH $125 / Month * Billed Annually LEARN MORE START A 7-DAY TRIAL	FULL ACCESS $166 / Month * Billed Annually LEARN MORE START A 7-DAY TRIAL
Common					
File Library			✔	✔	✔
Import Data from Excel			✔	✔	✔
Import Surveys from Word		✔	✔	✔	✔
Required Questions	✔	✔	✔	✔	✔
Translations and Internationalization			✔	✔	✔
Unlimited Pages*	5	✔	✔	✔	✔
Unlimited Questions	✔	✔	✔	✔	✔
Unlimited Responses Per Survey*	100	✔	✔	✔	✔
Unlimited Surveys*	3	✔	✔	✔	✔
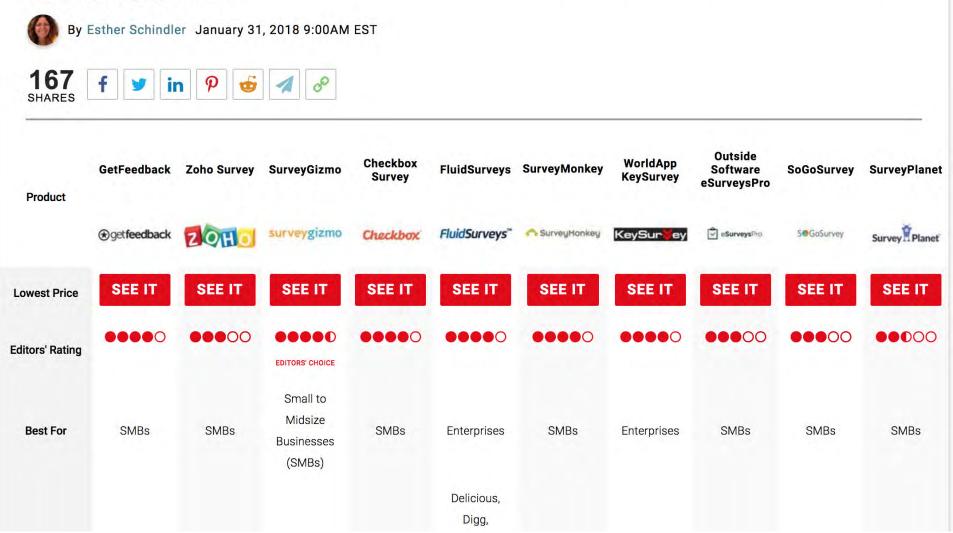
102

The Best Online Survey Tools of 2018

One of the best ways to connect directly with your customers is through online survey marketing. We test and compare 10 survey tools to get you started.
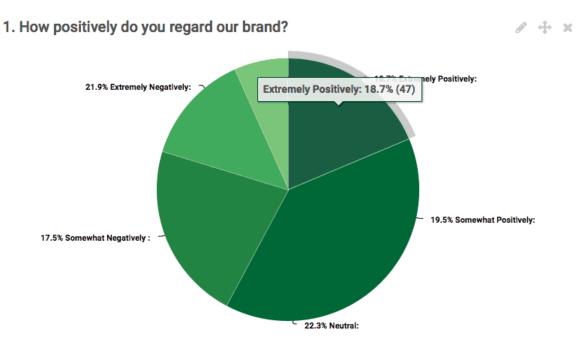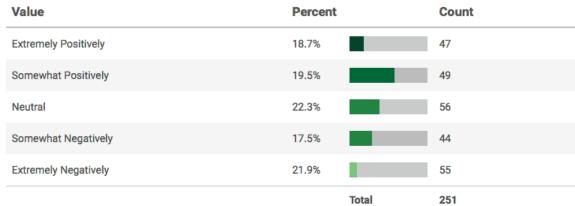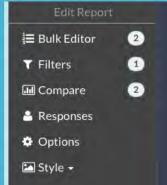
By **Esther Schindler** • January 31, 2018 9:00AM EST

167 SHARES f 🐦 in 📌 🔴 ✈ 🔗

Product	GetFeedback	Zoho Survey	SurveyGizmo	Checkbox Survey	FluidSurveys	SurveyMonkey	WorldApp KeySurvey	Outside Software eSurveysPro	SoGoSurvey	SurveyPlanet
	⊛getfeedback	ZOHO	surveygizmo	Checkbox	FluidSurveys™	SurveyMonkey	KeySurvey	eSurveysPro	SoGoSurvey	Survey Planet
Lowest Price	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT	SEE IT
Editors' Rating	●●●●○	●●●○○	●●●●◐ EDITORS' CHOICE	●●●●○	●●●●○	●●●●○	●●●●○	●●●○○	●●●○○	●●◐○○
Best For	SMBs	SMBs	Small to Midsize Businesses (SMBs)	SMBs	Enterprises	SMBs	Enterprises	SMBs	SMBs	SMBs
					Delicious, Digg,					

OPTIONS

Let's build something aw

Page 1: Page One

1. Please fill out the form below and we will be in touch
   Edit ✏   Edit ✏

   First Name *   Last Name

   [   ]   [

   Edit ✏

   Company Name

   [   ]

   Edit ✏

   Street Address

   [   ]

   Edit ✏

   Apt/Suite/Office

   [   ]

   Edit ✏   Edit ✏   Edit ✏

   City   State   Zipcode

   [   ]   [   ]   [

Please fill out the form below and we will be ...

QUESTION   LOGIC   VALIDATION   LAYOUT

Please fill out the form below and we will be in touch shortly.

Add Additional Instructions (Rich Text)   Insert merge code

Question Type

[Contact Form   ▼]   View Question Type Cheatsheet

☐ Require this question

Sub-questions   ⚙ Advanced Options

First Name	✏ ✖ ↕
Last Name	✏ ✖ ↕
Company Name	✏ ✖ ↕
Street Address	✏ ✖ ↕
Apt/Suite/Office	✏ ✖ ↕

⊕ Add Another Question   Never Mind   Save Question

Edit Report

≣ Bulk Editor   ①
▼ Filters   ①
📊 Compare   ⓪
👤 Responses
⚙ Options
🖼 Style ▾

1. How positively do you regard our brand?

✏ ✛ ✖

21.9% Extremely Negatively:

18.7% Extremely Positively:

Extremely Positively: 18.7% (47)

19.5% Somewhat Positively:

17.5% Somewhat Negatively :

22.3% Neutral:

Value	Percent		Count
Extremely Positively	18.7%		47
Somewhat Positively	19.5%		49
Neutral	22.3%		56
Somewhat Negatively	17.5%		44
Extremely Negatively	21.9%		55
	Total		**251**

(INSERT)

107

BUILD   STYLE   TEST   SHARE   RESULTS ▾   TOOLS ▾   ADVANCED ▾

⚙ ACCOUNT ▾   💬 NEED HELP?

Edit Report

☰ Bulk Editor ②
▼ Filters ①
📊 Compare ②
👤 Responses
⚙ Options
🖼 Style ▾

2. How often do you log in?

Value	Segment	Percent	% of Total	Count
Rarely/Never	Promoters	21.2%	3%	7
	Detractors	78.8%	11.1%	26
	Total		14.1%	33
Monthly	Promoters	27.9%	7.3%	17
	Detractors	72.1%	18.8%	44
	Total		26.1%	61
Weekly	Promoters	20%	4.3%	10
	Detractors	80%	17.1%	40
	Total		21.4%	50
Daily	Promoters	19.4%	3%	7

108

EXAMPLE

Practical example

- Building a questionnaire
  - Editing Questionnaire
- Testing the questionnaire
- Data collection
- Reports
- "Export" data

Access

- https://app.surveygizmo.com
- Username: efos.istrazivanja@gmail.com
- Password: Studenti2018

Constructing a questionnaire

- Questionnaire prepared for the workshop (Loomen!)
  - Different measurement scales (nominal, ordinal, interval, proportional)
  - Filter questions
  - Open questions
  - Questions with multiple responses

Dear all,

This questionnaire is designed for the needs of the doctoral dissertation *Model approach in statistical measurement of motivation for achievement and intentions for self-employment of student population*. The respondents are students of the Faculty of Economics in Osijek. The questionnaire contains questions about characteristics of respondents, and plans and attitudes towards future career. The anonymity of your answers is fully guaranteed.

Thank you in advance for your answers and cooperation!

Head of the research
Izv. prof. dr. sc. Josipa Mijoč
Josipa.mijoc@efos.hr

1. If you were able to choose between running your own business and employment in a company that is owned by someone else, what would you choose *(circle one number on the proposed grading scale)*:

I would rather be employed for someone else	1	2	3	4	5	I would rather be self-employed

2. Evaluate the likelihood that you will become a self-employed person (write the evaluated likelihood as a percentage, i.e. number from 0% to 100%): _____ %

How much do you agree with the following statements: (1 – completely disagree, 5 – completely agree)

3.	I cannot imagine working for someone else.	1	2	3	4	5
4.	The idea of my own business is not attractive to me.	1	2	3	4	5
5.	To work in my own company would be a personal satisfaction for me.	1	2	3	4	5
6.	In the next 5 years I will start my own business.	1	2	3	4	5
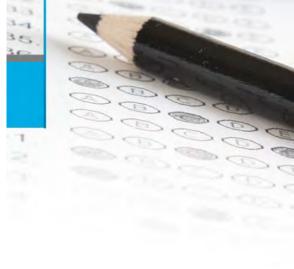
7. Have your parents (at least one of them) ever started a company?   Yes   No

If the answer is yes, please also answer the following questions
7.1. Generally looking, how do you assess your parents' experience in the family business?
        a. positively   b. negatively
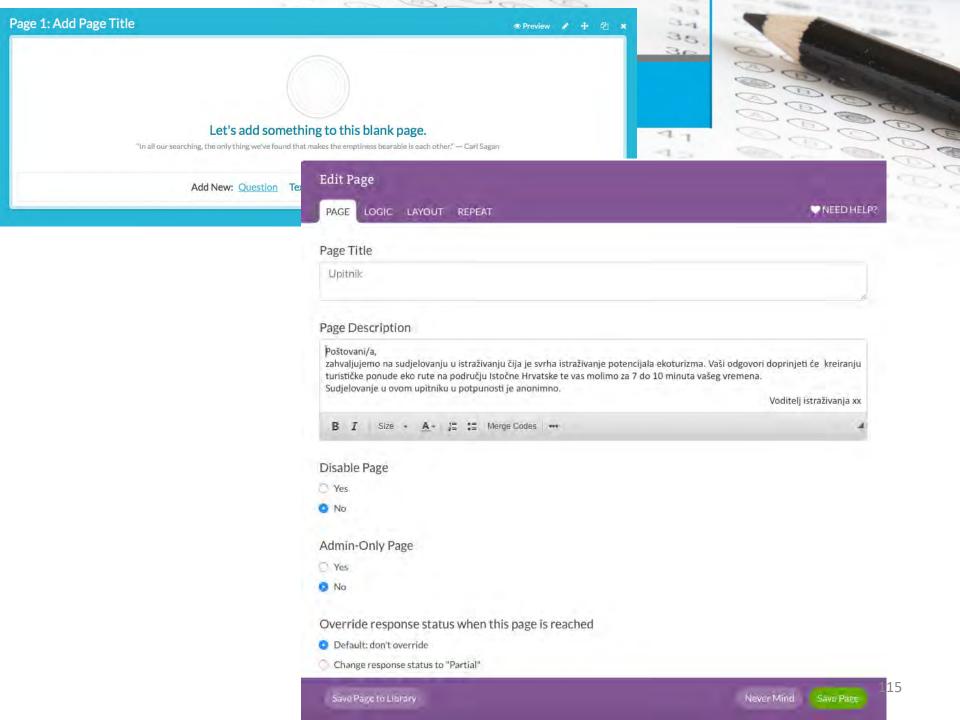
8. I think that I learned about the following areas of entrepreneurship during education:
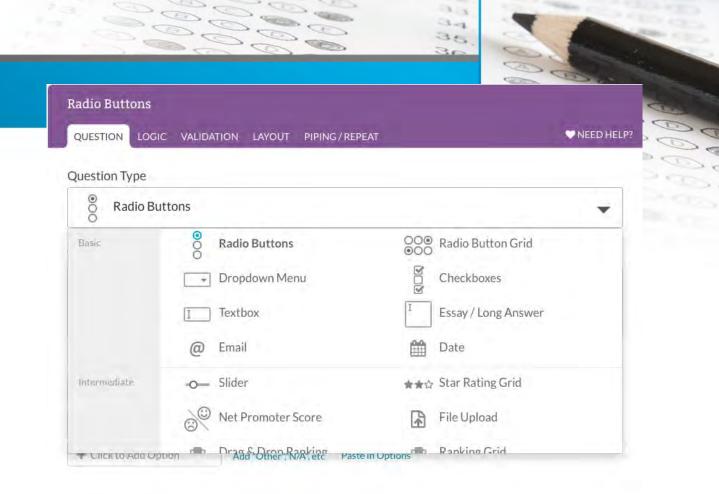
	completely disagree				completely agree
Opportunity recognition	1	2	3	4	5
Evaluation of opportunities	1	2	3	4	5
Starting a business	1	2	3	4	5
Financing starting a business	1	2	3	4	5

Demographic characteristics

D1. Gender   a. Male b. Female
D2. Year of birth 19__ __
D3. Finished high school _____ *(write in)*

Page 1: Add Page Title

⦿ Preview ✏ ✛ ⧉ ✕

Let's add something to this blank page.

"In all our searching, the only thing we've found that makes the emptiness bearable is each other." — Carl Sagan

Add New: Question   Tex

Edit Page

PAGE   LOGIC   LAYOUT   REPEAT

♥ NEED HELP?

Page Title

Upitnik

Page Description

Poštovani/a,
zahvaljujemo na sudjelovanju u istraživanju čija je svrha istraživanje potencijala ekoturizma. Vaši odgovori doprinjeti će kreiranju turističke ponude eko rute na području Istočne Hrvatske te vas molimo za 7 do 10 minuta vašeg vremena.
Sudjelovanje u ovom upitniku u potpunosti je anonimno.

Voditelj istraživanja xx

B *I*   Size ▾   **A**▾   ☰   ☲   Merge Codes   •••

Disable Page

○ Yes

● No

Admin-Only Page

○ Yes

● No

Override response status when this page is reached

● Default: don't override

○ Change response status to "Partial"

Save Page to Library

Never Mind   Save Page

115

Checkboxes

Question Type

☑
☐ Checkboxes
☑

What question do you want to ask?

☐ Require this question

Koje od navedenih izvora informacija smatrate najvažnijima pri donošenju odluke o planovima za putovanje:

What would you like to do with these? ✕

Insert Options Below   Replace Options

Multiple Choice Options

…mon Answer Library   Advanced Option Settings

Option 1

Option 2

➕ Click to Add Option   Add "Other","N/A", etc   Paste in Options

⊕ Add Another Question   Save Question to Library   Never Mind   Save Question

117

Text & Translations

Add Translation

Translation	Text Direction	
English	Left to Right	✖

⬇ Export Fields for Translation

English

Export Fields for Translation | Import Translation

General   Messages   Toolbar   Reports

Field	Default Text	Translation	Controls
Buttons			
Back	Back	Back	✏ Edit
Next	Next	Next	✏ Edit
Submit	Submit	Submit	✏ Edit
Clear	Clear	Clear	✏ Edit
Reset Highlights	Reset Highlights	Reset Highlights	✏ Edit
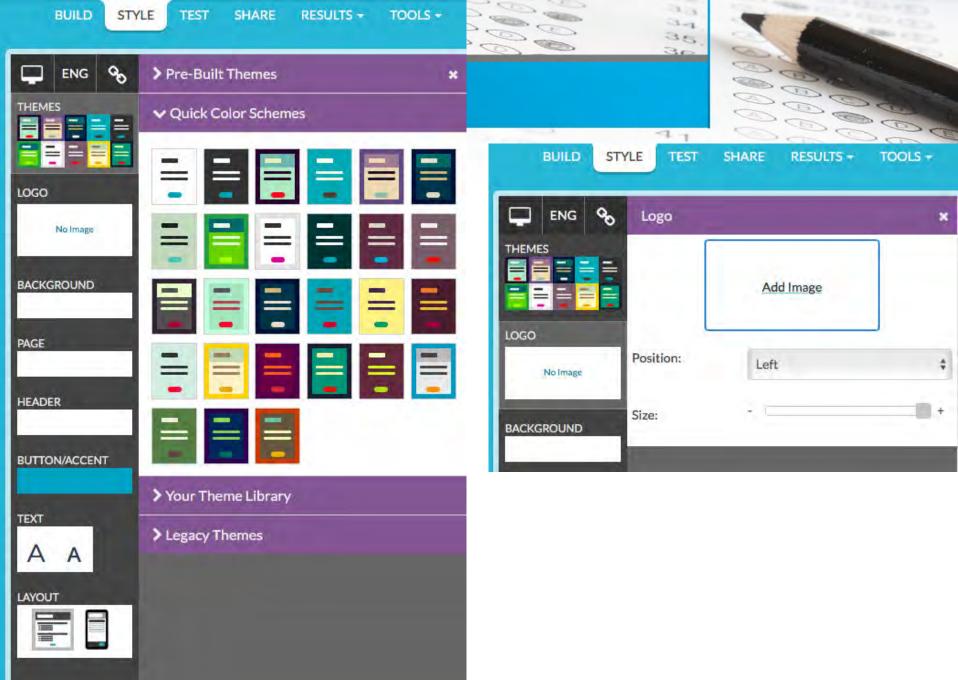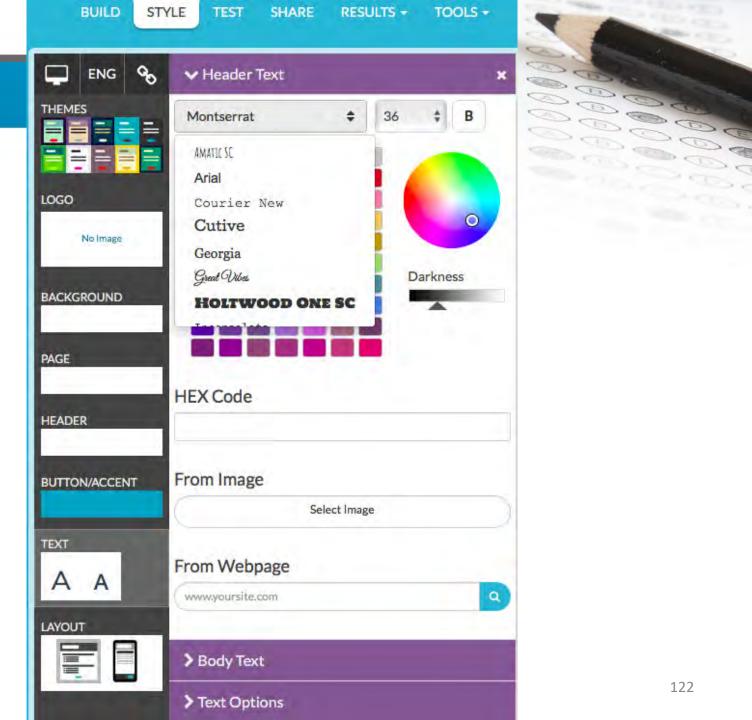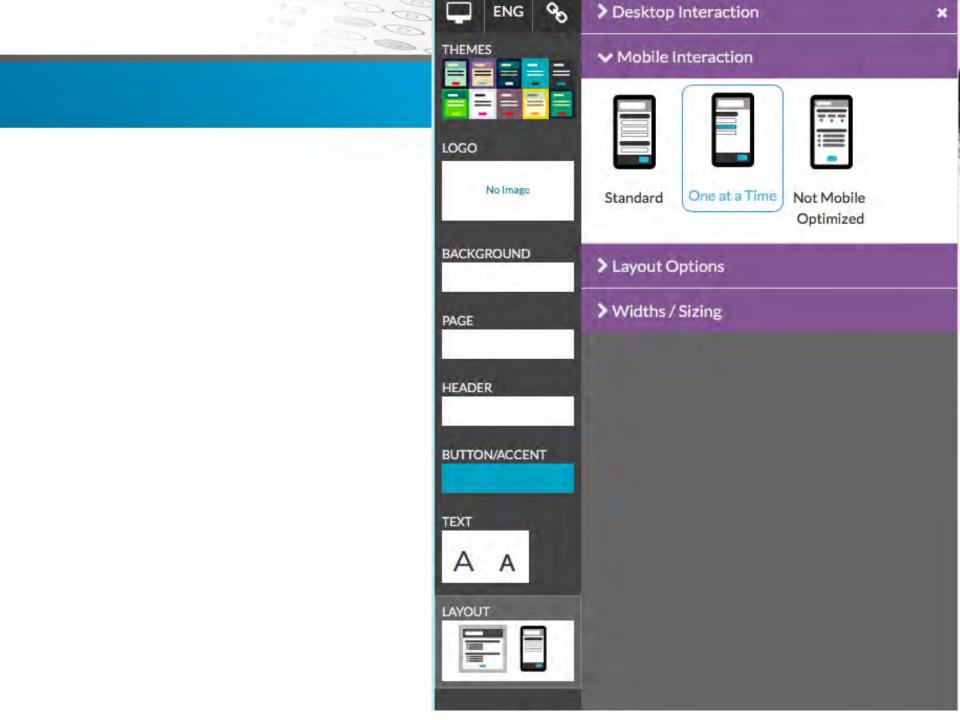
"Fast" translation

THEMES

LOGO

No Image

BACKGROUND

PAGE

HEADER

BUTTON/ACCENT

TEXT

A A

LAYOUT

ENG

> Desktop Interaction

∨ Mobile Interaction

Standard

One at a Time

Not Mobile Optimized

> Layout Options

> Widths / Sizing

Questionnaire testing
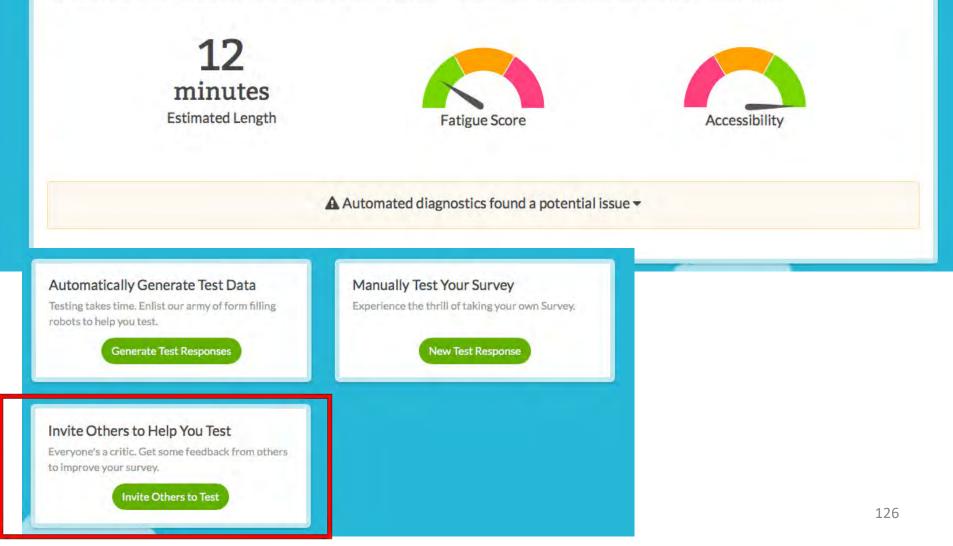
- Cooperation of the research team
- Correction of questionnaire by:
  - Research associates
  - Experts
  - Potential respondents

  - Correction of the questionnaire
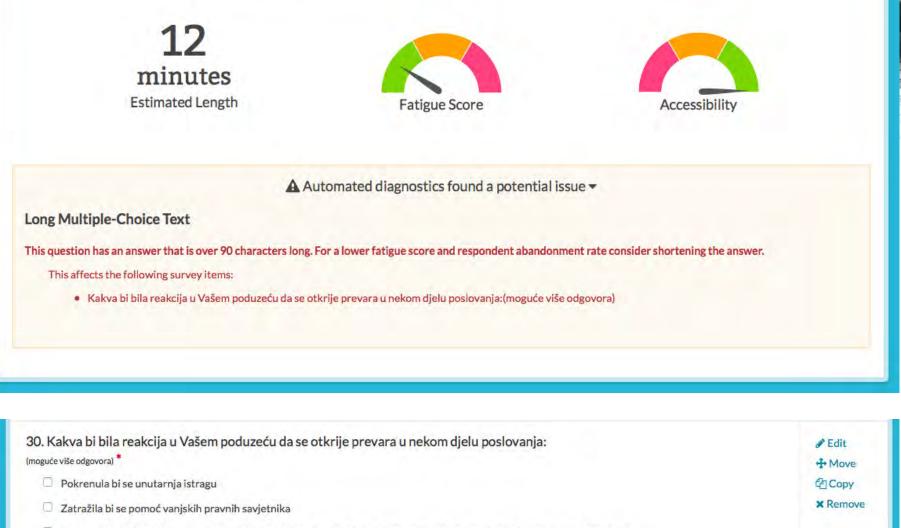
Survey Diagnostics

We've run an inconceivable number of surveys & forms and have learned a thing or two about what makes a successful project. Part of making your project great is making sure that your participants can and will participate. Form Length, Fatigue, and Accessibility are all measures of how easy it is for your participant to make it through.

12 minutes
Estimated Length

Fatigue Score

Accessibility

⚠ **Automated diagnostics found a potential issue ▾**

Automatically Generate Test Data

Testing takes time. Enlist our army of form filling robots to help you test.

Generate Test Responses

Manually Test Your Survey

Experience the thrill of taking your own Survey.

New Test Response

Invite Others to Help You Test

Everyone's a critic. Get some feedback from others to improve your survey.

Invite Others to Test

126

We've run an inconceivable number of surveys & forms and have learned a thing or two about what makes a successful project. Part of making your project great is making sure that your participants can and will participate. Form Length, Fatigue, and Accessibility are all measures of how easy it is for your participant to make it through.

12
minutes
Estimated Length

Fatigue Score

Accessibility

⚠ Automated diagnostics found a potential issue ▾

Long Multiple-Choice Text

This question has an answer that is over 90 characters long. For a lower fatigue score and respondent abandonment rate consider shortening the answer.

This affects the following survey items:

- Kakva bi bila reakcija u Vašem poduzeću da se otkrije prevara u nekom djelu poslovanja:(moguće više odgovora)

---

30. Kakva bi bila reakcija u Vašem poduzeću da se otkrije prevara u nekom djelu poslovanja:

(moguće više odgovora) *

- ☐ Pokrenula bi se unutarnja istragu
- ☐ Zatražila bi se pomoć vanjskih pravnih savjetnika
- ☐ Uprava bi zadržala informaciju i pričekala određeno vrijeme prije poduzimanja određenih mjera za pronalazak počinitelja
- ☐ Zatražila bi se pomoć stručnjaka poslovne forenzike
- ☐ Uprava bi riješila taj problem
- ☐ Ne znam

✎ Edit
✛ Move
⎘ Copy
✖ Remove

Data collection time ☺

- Please fill in the questionnaire ☺
- Link
  - Very soon in your e-mail

Sharing the survey link

Email Campaigns and Source Tracking
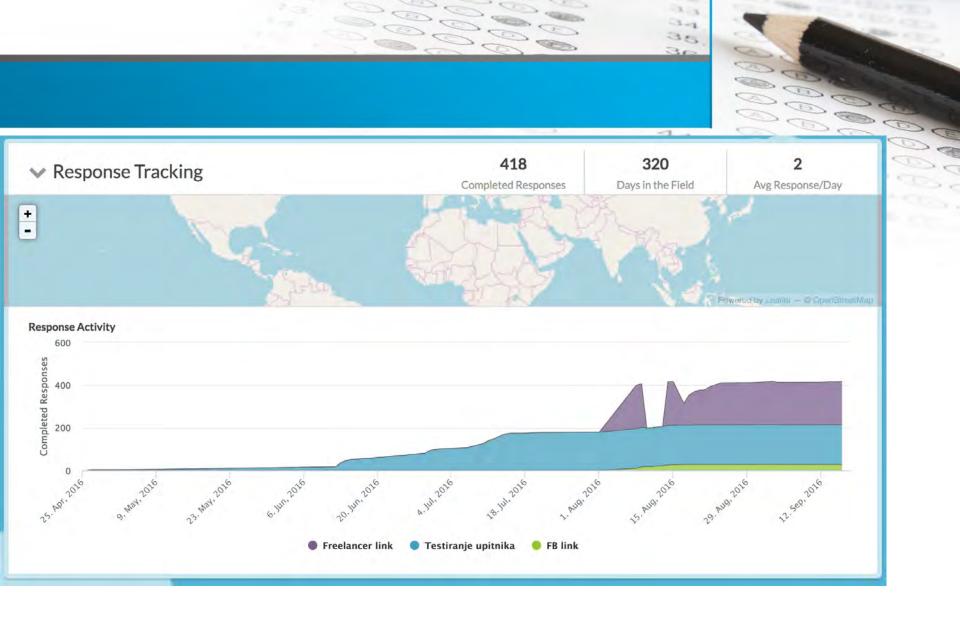
Create New Tracking Link Close Survey

Search 🔍

Pay for Responses	On-site/Offline	On Your Website	Email & Social
Third-Party Panels	Download for Offline Use	Embedded Survey	Send an Email Campaign
	Print a QR Code	🔒 Website Intercept Survey	Post on Social Media
	Launch in Kiosk Mode		

Source Tracking

Name	Status	Date Created	Responses	Link	Edit
Default Link	Active	A Moment Ago	0	Share ⌄	📋

Reports

BUILD STYLE TEST SHARE RESULTS ▾ TOOLS ▾ ADVANCED ▾

RESULTS ▾
- Individual Responses
- Reports
- Exports

Page 1: Add Page Title

Reports

Report for EFOS-SG Demo
Report Created: February 19th 2018

✏ View/ Edit   ☐ Preview   ☐ Share

Data Preparation

🏷 Analyze Open Text Answers
🔧 Quarantine Low Quality Responses

Saved Reports

📁 Reports

🗑 Deleted

➕ New Folder

Create Report ✔

search 🔍

Created ▾

2-19 17:40:25

Standard
Most common report type. View all questions, segment and filter, style and share.

Legacy Summary Report
The original summary report.

Fall-Off Statistics
See where respondents are abandoning your survey.

Profile Report
Compare individual responses to the rest of the data.

Crosstab
See how two multiple-choice questions trend together.

Comparison
Compare all results split by the answers to a single question.

131

Data export

Create an Export

Easily export your responses for use in external systems or databases.

CSV / Excel
Customize which data you export

Bulk PDF
Create a PDF of each individual response

SPSS Export
Export to the statistical analysis program SPSS

Saved Exports

📁 Exports

🗑 Deleted

➕ New Folder

New Export ⌄

CSV / Excel
Bulk PDF
SPSS Export

search 🔍

!!!!

- Export in SPSS (.sav)

♥ NEED HELP?

Report Settings

Miscellaneous Options

☑ Hide disabled answer options

☐ Hide empty columns

☑ Enable shown, unanswered questions to be distinguished from unshown questions

Options

Variable Name

☑ Use alias as the SPSS label

Labeled Values Numbering

☑ Automatically increment labeled values numerically for questions with non-numeric reporting values

Never Mind   Save

134

Close the survey!

Descriptive statistics

Descriptive statistics

2. Godine radnog iskustva u računovodstvu/financijama:(Upišite broj u prostor ispod)

Average

12.2

Chart Type
Filter
Layout & Options
Move
Delete

Edit Report Element

CHART TYPE   FILTER   LAYOUT & OPTIONS

Element Options

This element is *not* using the report's overall options
It is using only the settings below. **Reset to use the report's overall options**.

Question Options

Show the following

- ☑ Word Cloud
- ☑ Statistics
  - ☐ Sum
  - ☑ Average
  - ☐ Min
  - ☐ Max
  - ☐ Standard Deviation
  - ☐ Total Responses
  - ☐ Hidden Count
  - ☐ Skipped Count

Never Mind   Save

Word cloud – open questions

10. Opišite vrstu edukacija koje ste pohađali iz spomenutih područja:

analitika
poslijediplomski
aktualnosti
tečajevirif izvještaja analiza
analize iz radionice područja
studij acca za ovlašteni
na rrif financijskih razni
analizu
revizora ovlaštenog financije
računovođa

32 Total Responses | Show Responses ▶

Chart Type
Filter
Layout & Options
Move
Delete

Analysis of scale variable

17. Izrazite stupanj slaganja s ponuđenim izjavama,1 - u potpunosti se ne slažem, 2 - ne slažem se, 3 - niti se slažem, niti se ne slažem, 4 - slažem se, 5 - u potpunosti se slažem.

- Chart Type
- Filter
- Layout & Options
- Move
- Delete

	1	2	3	4	5	Responses
a. Internu komunikaciju u poduzeću na zadovoljavajućoj je razini. Count Row %	2 3.4%	8 13.6%	16 27.1%	21 35.6%	12 20.3%	59
b. Poznat mi je opis posla forenzičkih računovođa. Count Row %	7 11.9%	13 22.0%	14 23.7%	15 25.4%	10 16.9%	59
c. Postoji razlika u provođenju forenzične revizije i revizije financijskih izvještaja. Count Row %	1 1.7%	5 8.5%	11 18.6%	18 30.5%	24 40.7%	59
d. Poduzeće u kojem sam zaposen/a ima potrebu za usavršavanjem djelatnika za forenzičkog računovođu. Count Row %	6 10.2%	9 15.3%	16 27.1%	22 37.3%	6 10.2%	59
e. Nekoliko puta godišnje interna kontrola provjerava cjelokupno poslovanje poduzeća. Count Row %	9 15.3%	7 11.9%	13 22.0%	19 32.2%	11 18.6%	59
Totals Total Responses						59

If we want more interpretation than %

SPSS!!

Export

- ● PDF
- ○ PowerPoint
- ○ Excel
- ○ Word

Options

- ☐ Insert a page break after each question
- ☑ Include page numbers
- ☐ Include lists of open text answers

Customize the design of your PDF with the help of SurveyGizmo's Pro Services team!

Contact us to learn more

Never Mind   Start Export

.Pdf Download

export-14664.pdf (page 1 of 39)

Q Search

export-14664.pdf

Response Counts

Report for Poslovna forenzika

Response Counts

Completion Rate:	100%	
	Complete	59

Totals: 59

1. Koju poziciju obnašate unutar Vašeg poduzeća?

HOW TO COLLECT QUALITATIVE DATA?

Qualitative research

- In-depth interviewing

- Focus group

- Projective techniques
  - Association techniques
  - Completion techniques
  - Construction techniques
  - Expressive techniques

In-depth interview

- unstructured, direct, personal
- single participant
  – experienced interviewer
- uncover underlying motivations, beliefs, attitudes and feelings on a topic
- understand the meaning of the participant's experiences and life worlds
- typically last from 30 minutes to more than an hour

Interviewer should:

- Create a guide for interview
- Develop an empathy with the participant
- Ensure that the participant is relaxed and comfortable
- Be personable to encourage and motivate
- Note issues that interest participant
- Not be happy to accept 'yes' or 'no' answers
- Note where probing is necessary

- Can you be the interviewer???

- **Advantages**
  - depth of insight
  - attribute responses
  - no social pressure
  - easier to arrange
- **Challenges**:
  - lack of structure
  - length of the interview
  - combined with high costs
  - analysis and interpretation of data

Participants

Sudionik 1
Rod: Ž   Dob: 34   Obrazovanje: dr. sc.
Vrijeme provedeno u CATI-u: 5 godina
Tema diplomskog rada: područje CATI-a
Broj objavljenih znanstvenih radova (temeljem projekta): 13
Samozapošljavanje nakon CATI-a: Da

Danas
Zaposlenje: Istraživač   Kontakt sa znanosti: Da
Zadovoljstvo trenutnom pozicijom: 5

Sudionik 2
Rod: M   Dob: 34   Obrazovanje: dipl. oec.
Vrijeme provedeno u CATI-u: 5 godina
Tema diplomskog rada: područje CATI-a
Broj objavljenih znanstvenih radova (temeljem projekta): 2
Samozapošljavanje nakon CATI-a: Ne

Danas
Zaposlenje: komercijalist Kontakt sa znanosti: Ne
Zadovoljstvo trenutnom pozicijom: 4

Sudionik 5
Spol: Ž   Dob: 47   Obrazovanje: prof. dr. sc.
Vrijeme provedeno u CATI-u: 5 godina
Broj objavljenih znanstvenih radova sa studentima (temeljem projekta): 16
Voditeljica znanstvenih projekata: 4

Sudionik 3
Rod: Ž   Dob: 34   Obrazovanje: dipl. oec.
Vrijeme provedeno u CATI-u: 5 godina
Tema diplomskog rada: područje CATI-a
Broj objavljenih znanstvenih radova (temeljem projekta): 0
Samozapošljavanje nakon CATI-a: Ne

Danas
Zaposlenje: voditelj prodaje   Kontakt sa znanosti: Ne
Zadovoljstvo trenutnom pozicijom: 4,5

Sudionik 4
Rod: M   Dob: 32   Obrazovanje: dipl. oec.
Vrijeme provedeno u CATI-u: 5 godina
Tema diplomskog rada: područje CATI-a
Broj objavljenih znanstvenih radova (temeljem projekta): 1
Samozapošljavanje nakon CATI-a: Da

Danas
Zaposlenje: direktor vlastitog poduzeća   Kontakt sa znanosti: Ne
Zadovoljstvo trenutnom pozicijom: 5

Participant 1

Sudionik 1

Rod: 2   Dob: 34   Obrazovanje: dr. sc.

Vrijeme provedeno u CATI-u: 5 godina

Tema diplomskog rada: područje CATI-a

Broj objavljenih znanstvenih radova (temeljem projekta): 13

Samozapošljavanje nakon CATI-a: Da

Danas

Zaposlenje: Istraživač   Kontakt sa znanosti: Da

Zadovoljstvo trenutnom pozicijom: 5

Focus group

Projective techniques

- An unstructured and indirect form of questioning that encourages participants **to project their underlying** motivations, beliefs, attitudes, or feelings regarding the issues of concern.

- Respondents are asked to interpret the behavior of others

  - In interpreting the behavior of others, respondents indirectly project their own motivations, beliefs, attitudes, or feelings into the situation.

Projective techniques
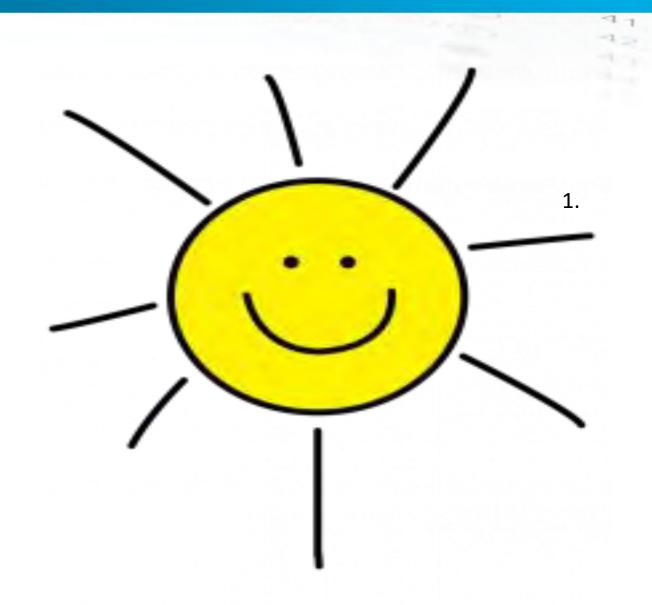
- Association techniques
- Construction techniques
    - Structuring techniques
- Completion techniques
- Expressive techniques

1. Association techniques

- Participants are presented with a stimulus and asked to respond with the **first thing that comes to mind**
- Word association
  - is the best known of these techniques

Sunshine ☺

1.
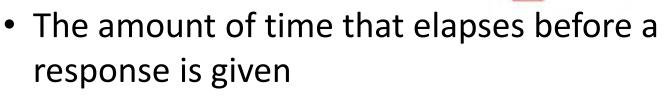
- The frequency with which any word is given as a response.

- The amount of time that elapses before a response is given
- The number of respondents who do not respond at all to a test word within a reasonable period.
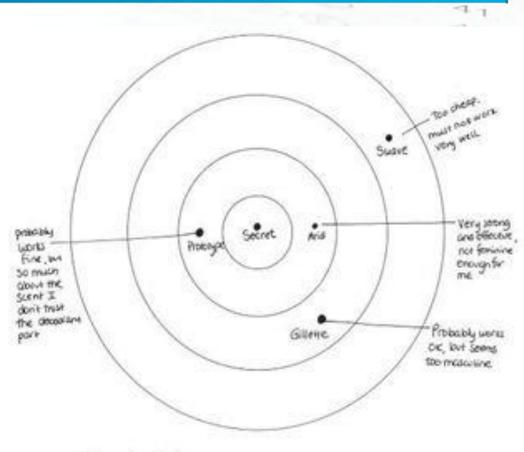
2. Completion techniques

- Respondents are asked to complete an incomplete stimulus situation

  - **Sentence completion**

    - Respondents are given incomplete sentences and are asked to complete them

      - use the first word or phrase that comes to mind

- When I am thinking about my career I see myself as:

_____

_____

_____
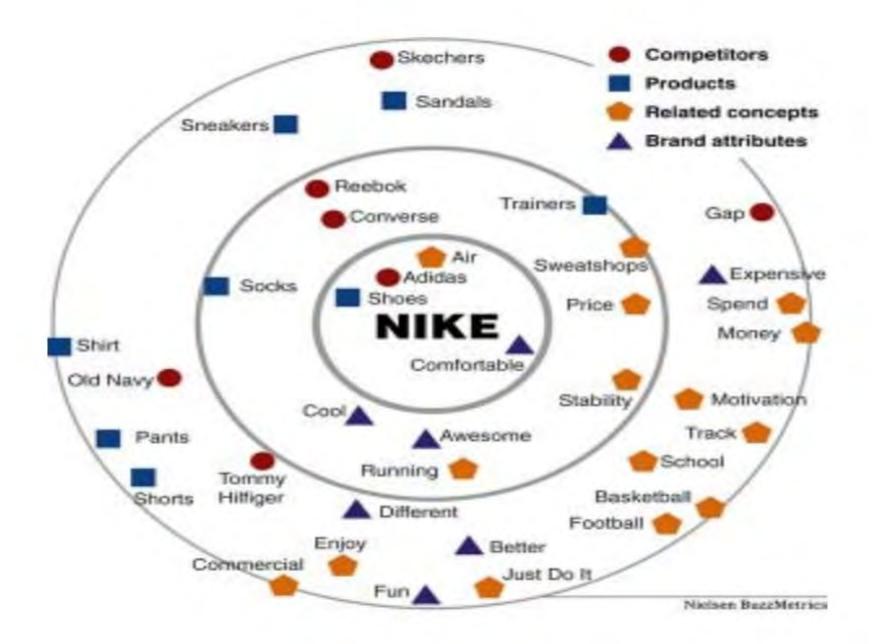
Structuring techniques

Hitting the Mark

Legend:
- ● Competitors
- ■ Products
- ⬟ Related concepts
- ▲ Brand attributes

Skechers
Sandals
Sneakers
Reebok
Converse
Trainers
Gap
Air
Sweatshops
Adidas
Expensive
Shoes
Price
Spend
Socks
NIKE
Money
Shirt
Comfortable
Old Navy
Stability
Motivation
Cool
Track
Pants
Awesome
School
Running
Basketball
Shorts
Tommy Hilfiger
Different
Football
Enjoy
Better
Commercial
Just Do It
Fun

Nielsen BuzzMetrics
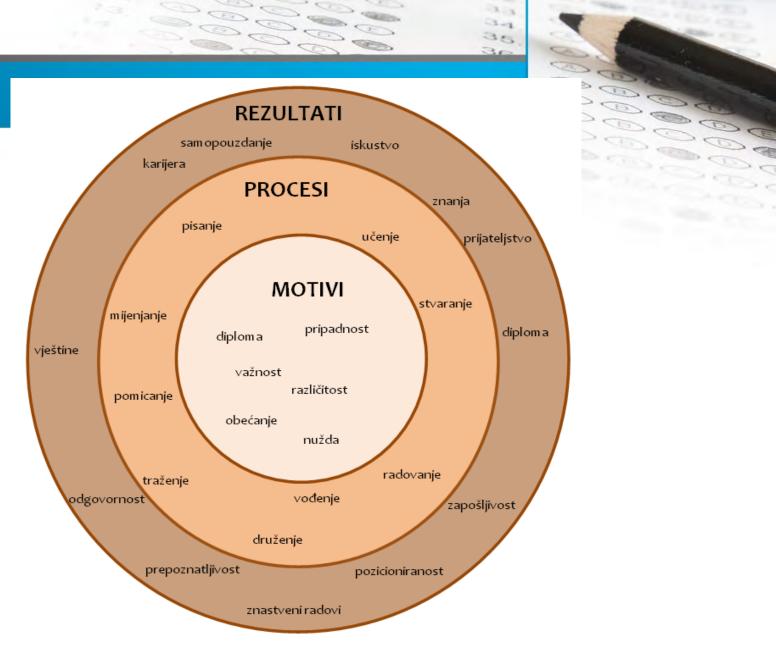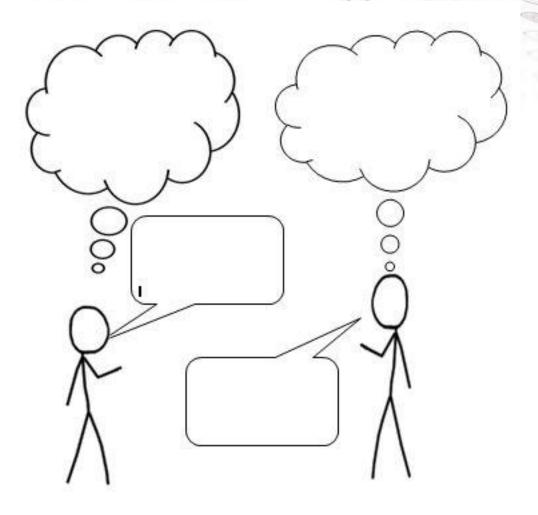
3. Construction techniques
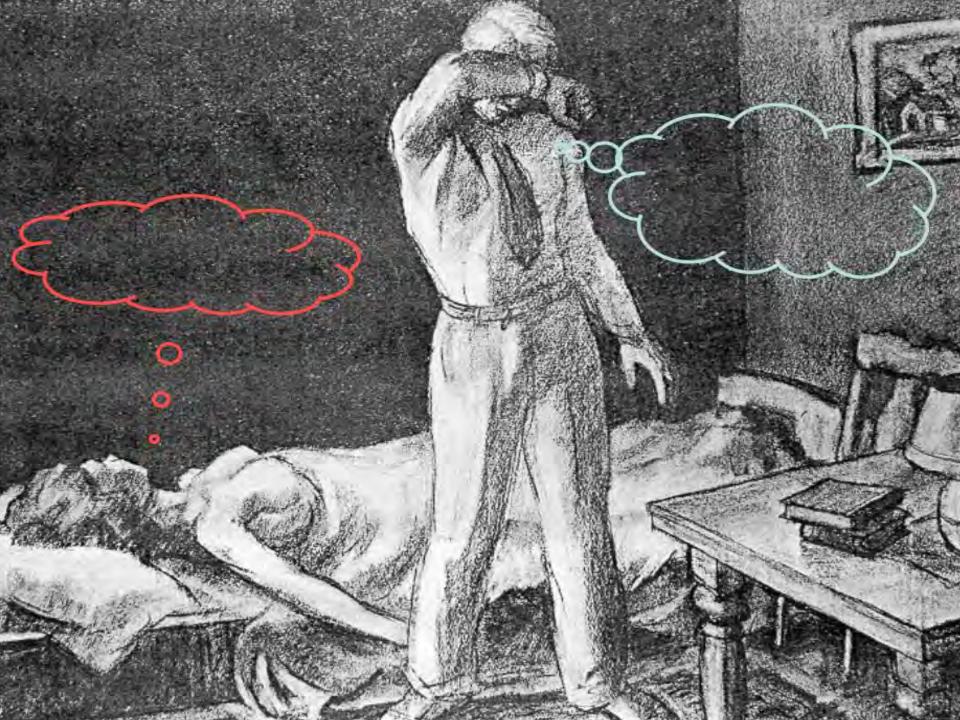
- Require the participants to construct a response in the form of a story, dialogue or description

- Researcher provides less initial structure to the participants than in a completion technique

- Picture response techniques

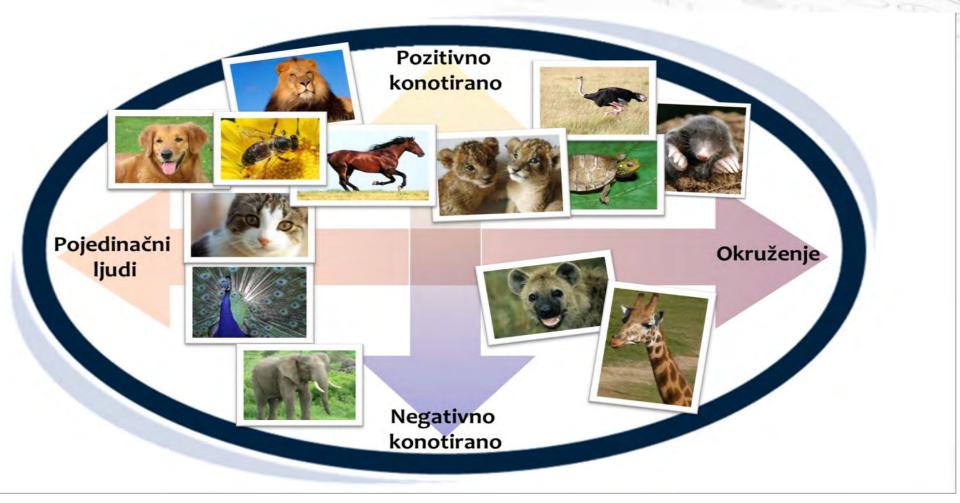 – thematic apperception test (TAT)

Dialogue techniques

4. Expressive techniques

- Respondents are presented with a verbal or visual situation and asked to relate the feelings and attitudes of other people to the situation
  - The participants express not their own feelings or attitudes, but those of other
  - The main expressive techniques are
    - Role-playing
    - The third-person technique
      - third person may be a friend, neighbor, colleague, or a "typical" person
    - Personification

Personification

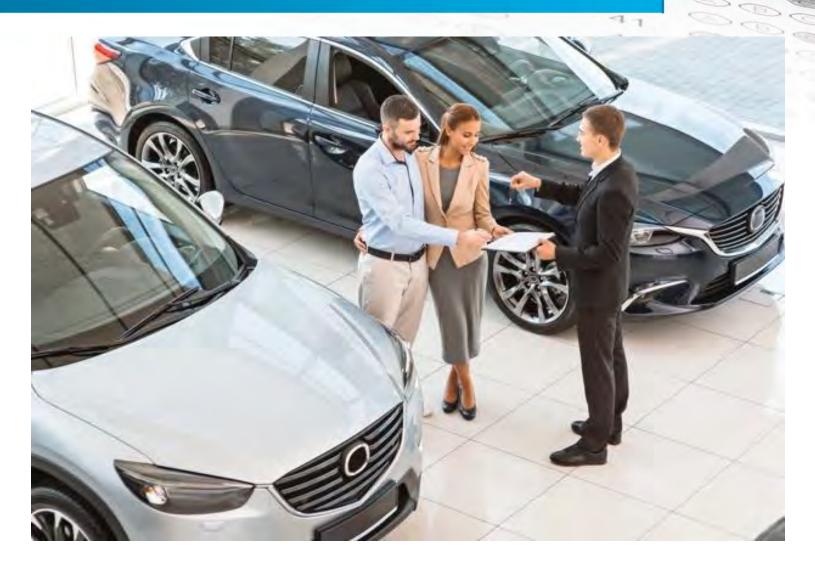# Brand Personality

- Symbolic meaning brands acquire

reliable, successful, confident, popular, well-made, stable, leading, efficient, satisfying, secure, real, clean, stylish, comfortable, fun, handy, different, new, innovative, trendy, up-to-date, imaginative, contemporary, unique, informative, versatile, fast, funny, warm, easy, bubbly, smooth, family-oriented, sentimental, playful, cheerful, simple, honest, corporate, friendly, sincere, western, free, technical, outdoorsy, delicate, professional, down-to-earth, health, active, neat, cool, wholesome, spirited, elegant, glamorous, upper-class, charming, feminine, formal, though, rugged, masculine, hard-working, old, traditional, typical, small town, original, strict, intelligent, busy, daring, heavy, big, young, good-looking, independent, expensive, exciting

5 Dimensions of Brand Personality

- Sincerity: Honest, Down-to-earth, Wholesome, Cheerful

- Excitement: Daring, Spirited, Imaginative, Up-to-date

- Competence: Reliable, Intelligent, Successful

- Sophistication: Upper-class, Charming

- Ruggedness: Outdoorsy, Tough

Role-playing

Advantages

- May elicit responses that participants would be unwilling or unable to give if they knew the purpose of the study

- Helpful when the issues to be addressed are personal, sensitive, or subject to strong social norms

- Helpful when underlying motivations, beliefs, and attitudes are operating at a subconscious level

Disadvantages

- Require highly-trained interviewers
- **Skilled interpreters are also required to analyze the responses**
- Serious risk of interpretation bias
- They tend to be expensive
- May require participants to engage in unusual behavior

Method/s of data collection

- Primary
  - Quantitative research – Questionnaire
  - Qualitative research – In-depth interview, Projective techniques (test of word association, storytelling, answering in the third person, unfinished sentences test, personification)
- Secondary
  - Publicly available electronic publications of state institution and services.
  - Data from websites of higher education institutions.