Project: Technical assistance to improve implementation of food safety standards and disease crisis preparedness

Expert elicitation process: methodology

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CONTENT

- Why we need expert opinion?
- Protocols for the expert elicitation process
- What protocol will we use for the qualitative risk assessment of the introduction of FMDV into the northern part of Cyprus?

Why we need expert opinion?

Obtaining information/knowledge:

- existing literature (scientific, gray…)
- through data collection (pilot or extensive studies) → empirical facts/data
- **expert opinion**

Why we need expert opinion?

- **Expert knowledge is** what qualified persons know as a result of technical practices, training and experience

- **Expert opinion/elicitation/judgment -** a set of methods that rely on behavioral and mathematical techniques to evaluate unknown quantitative data, evaluate each step of risk pathways, and quantify uncertainty

→ → → gains more importance ← ← ←

Protocols for the expert elicitation process

- The **Sheffield protocol** with group interaction of experts (behavior aggregation)

- **Cook's protocol** using general questions, where each expert is independent from the others (mathematical aggregation)

- **Delphi protocol**: written individual information collection from experts with feedback loops (mixed behavioral and mathematical aggregation)

Protocols for the expert elicitation process

Experts are people…

…and people are sensitive to a large number of subjective and psychological factors

The formal process of elicitation falls under most of the following factors:

- **motivational factors** (when the judgment is influenced by the desirability or undesirability of doing, consequences, results)
- **factors of overconfidence**
- **factors of fixation and regulation of prejudices** (fixation or focus is a cognitive bias that describes a person's general tendency to rely too heavily on the first piece of information offered ("anchor") when making decisions)

Protocols for the expert elicitation process

Key to success → well-defined protocol

1. Preparation
2. Elicitation
3. Analysis

What protocol will we use?

A combination of the Sheffield protocol (interaction between experts) and Delphi (the expert has access to the opinions of other participants)

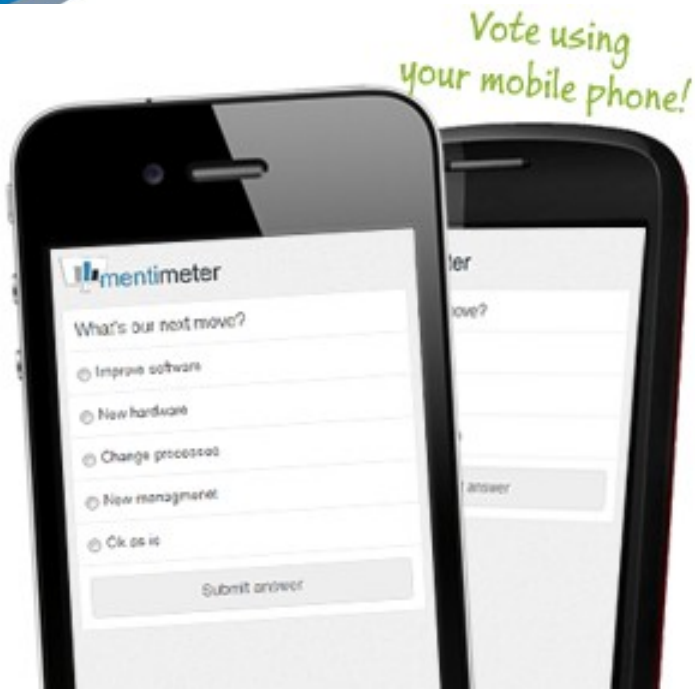
1. We will conduct individual evaluations without prior discussion.
2. The result will be presented to the group for discussion.
3. The second round of individual evaluations -> MODA will be accepted as the final result.

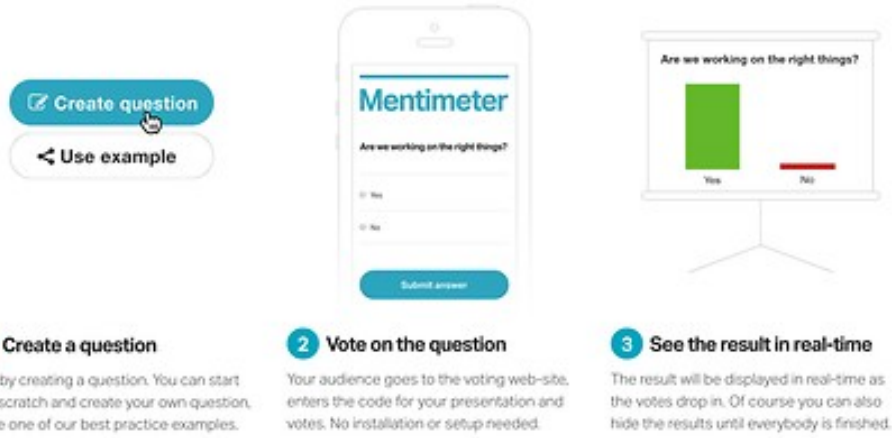
What protocol will we use?

A combination of the Sheffield protocol (interaction between experts) and Delphi (the expert has access to the opinions of other participants)

1. Presentation of collected data on each step of the risk pathway
2. We will conduct individual evaluations without prior discussion (first round)
3. The result will be presented to the group for discussion.
4. The second round of individual evaluations -> MODA will be accepted as the final result.

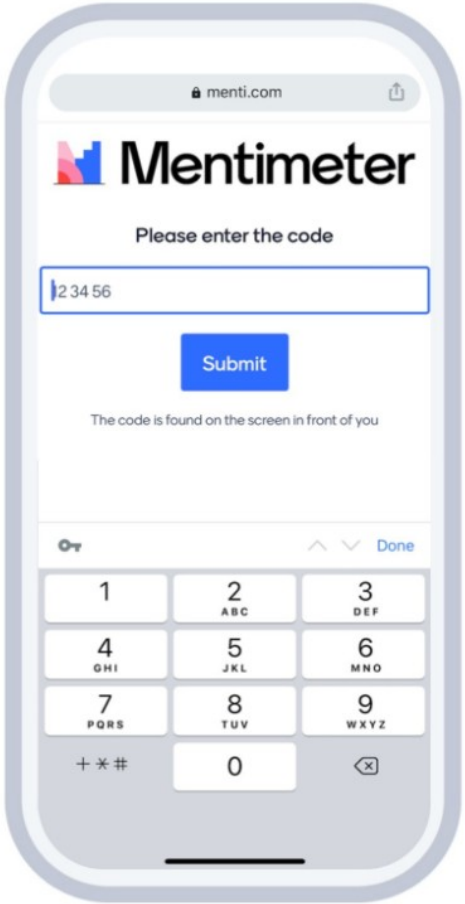
How will we collect your evaluations?

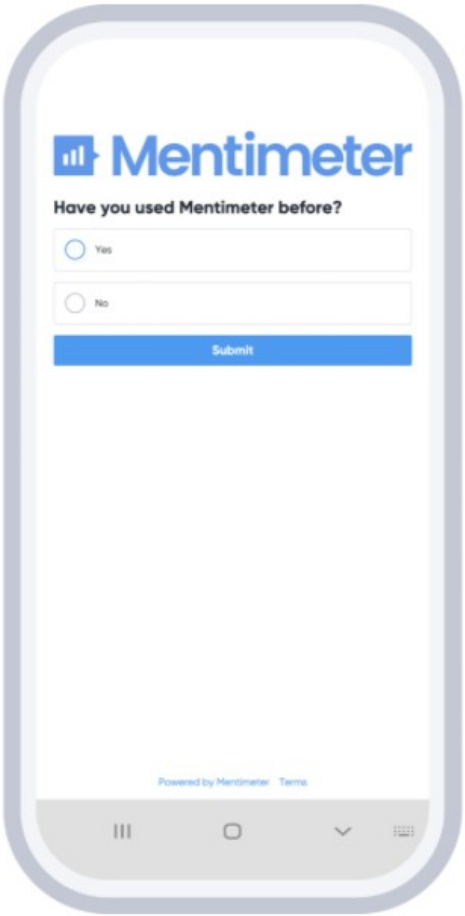


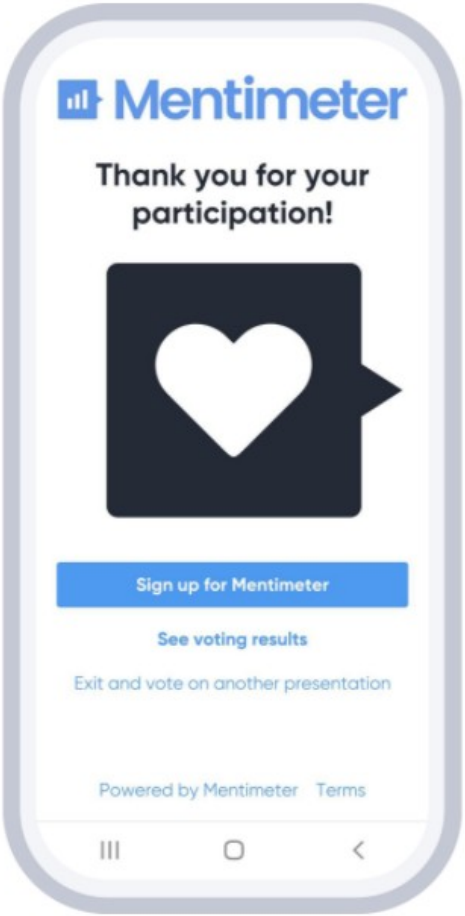


How to use the Mentimeter?

menti.com

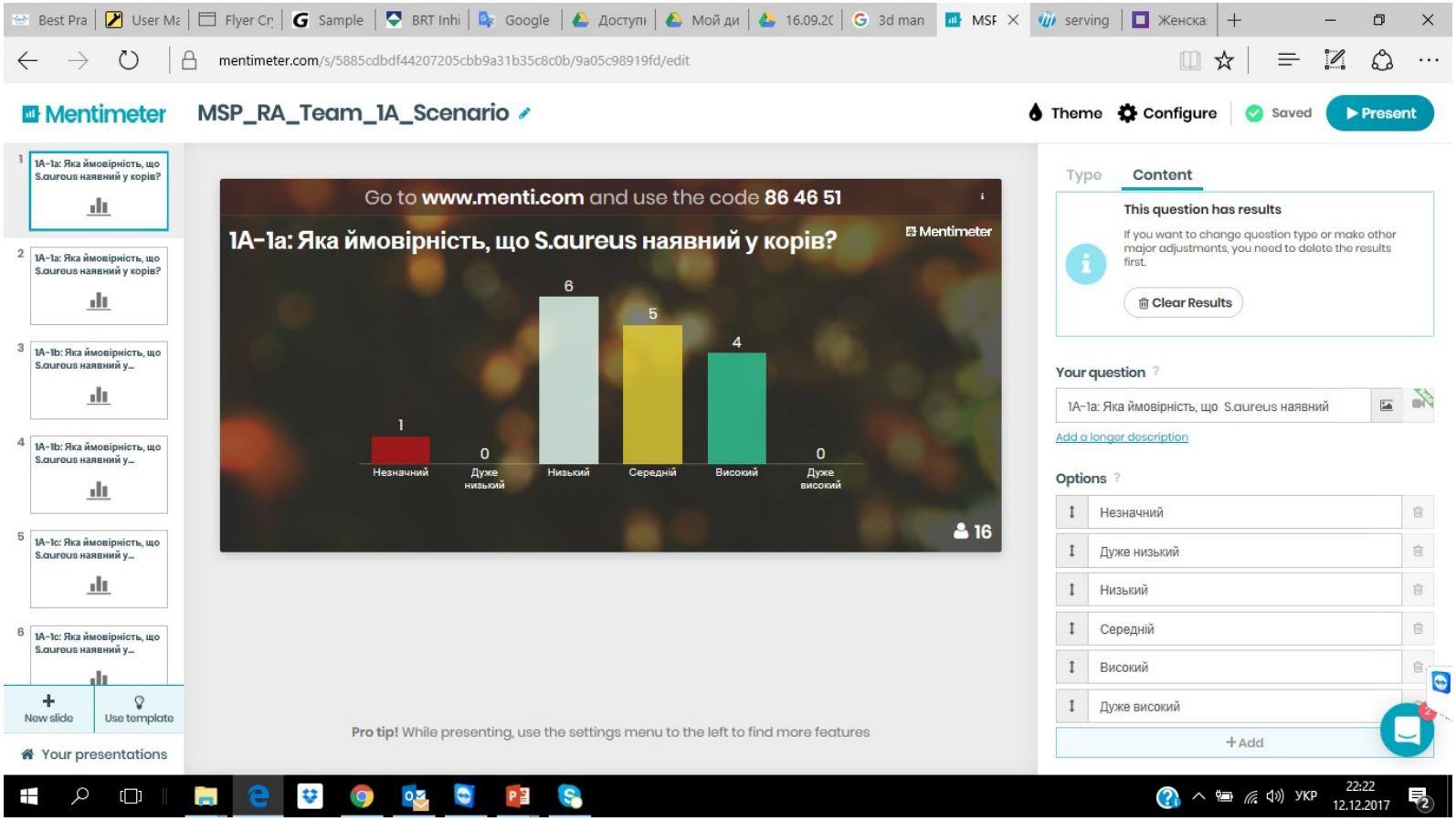






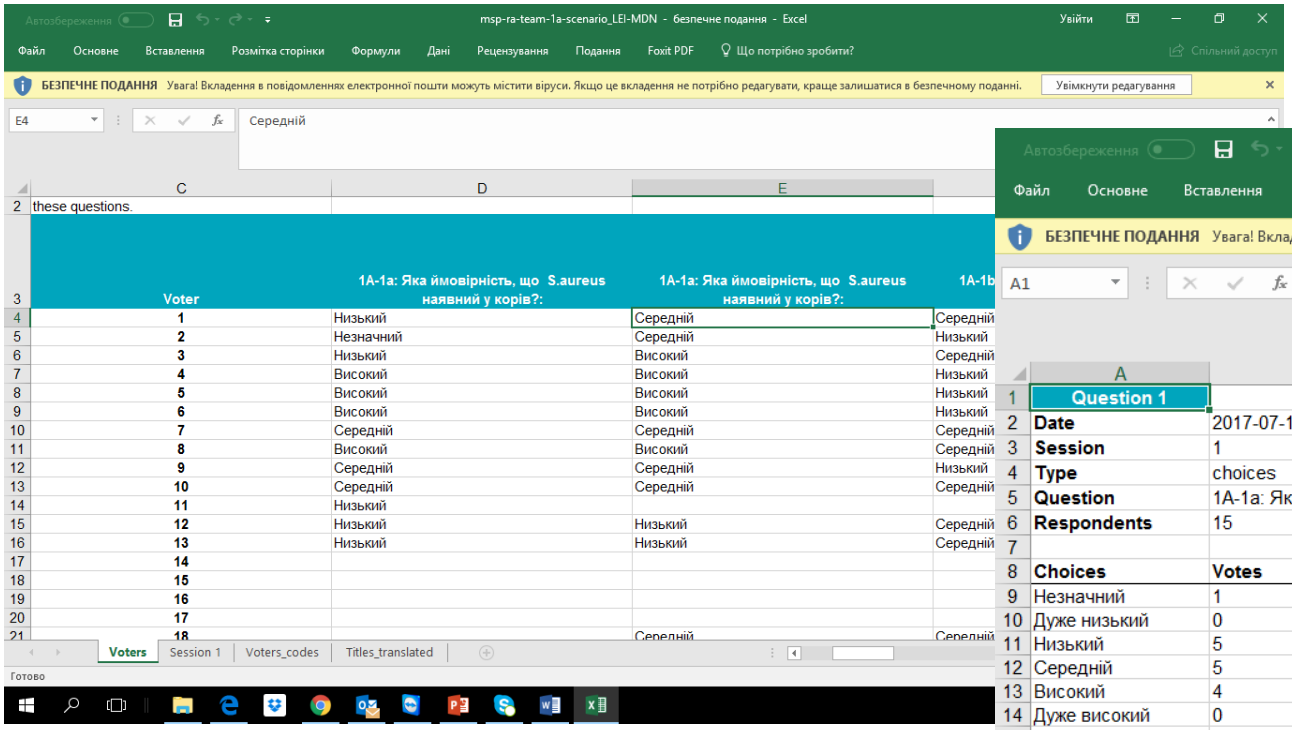
How to use the Mentimeter?

What will the results of the evaluation of each question look like?



What are next steps?

An analysis of the estimation results of each question will be carried out

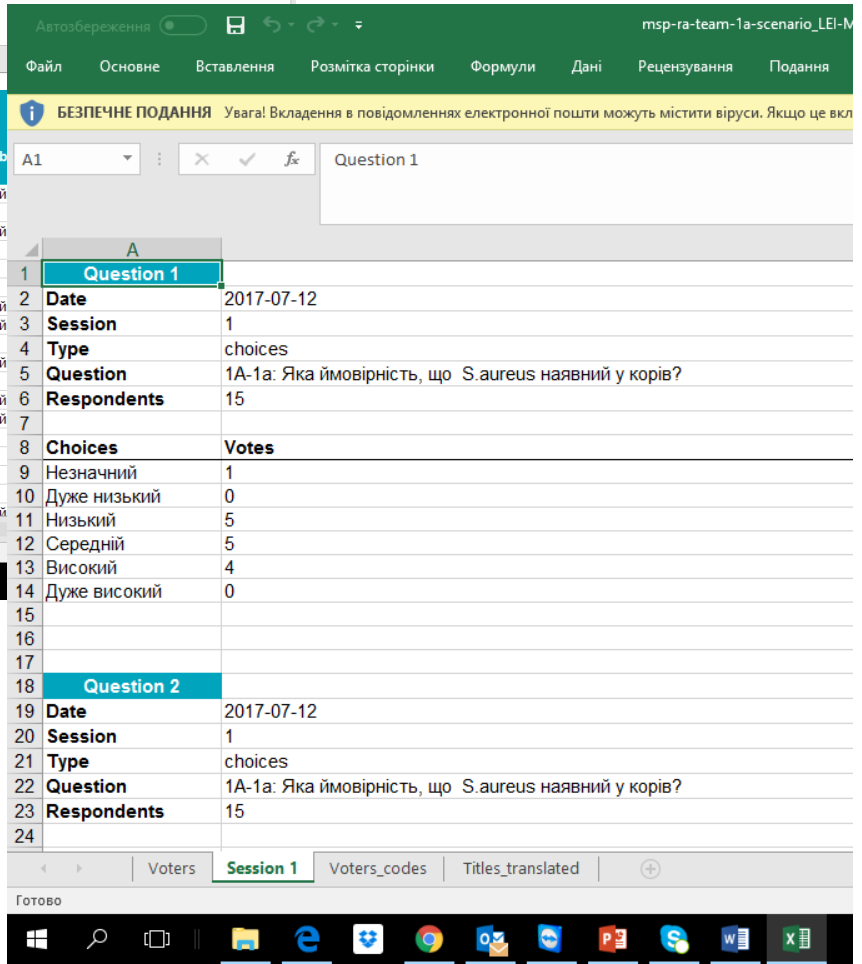


these questions.

Voter	1A-1a: Яка ймовірність, що S.aureus наявний у корів?:	1A-1a: Яка ймовірність, що S.aureus наявний у корів?:	1A-1b
1	Низький	Середній	Середній
2	Незначний	Середній	Низький
3	Низький	Високий	Середній
4	Високий	Високий	Низький
5	Високий	Високий	Низький
6	Високий	Високий	Низький
7	Середній	Середній	Середній
8	Високий	Високий	Середній
9	Середній	Середній	Низький
10	Середній	Середній	Середній
11	Низький		
12	Низький	Низький	Середній
13	Низький	Низький	Середній
14			
15			
16			
17			
18			Середній

Voters | Session 1 | Voters_codes | Titles_translated

Готово



Question 1

Question 1	
Date	2017-07-12
Session	1
Type	choices
Question	1A-1a: Яка ймовірність, що S.aureus наявний у корів?
Respondents	15
Choices	**Votes**
Незначний	1
Дуже низький	0
Низький	5
Середній	5
Високий	4
Дуже високий	0
Question 2	
Date	2017-07-12
Session	1
Type	choices
Question	1A-1a: Яка ймовірність, що S.aureus наявний у корів?
Respondents	15

Voters | Session 1 | Voters_codes | Titles_translated

Готово

What are next steps?

The uncertainty will be calculated

Uncertainty -> reflects lack of knowledge about probability

Calculation:
The level of disagreement between different experts will be recorded through an individual voting process and will be used as an indicator of the level of uncertainty.

The distribution of marks for a specific question will be evaluated by:

a) converting the qualitative risk assessment into a quantitative assessment (negligible = 1, very high = 6), and then
b) the average value of the absolute difference of individual risk estimates and mode (AVDIF-MODE) will be calculated

What are the tasks for today's consultation?

- **Estimate each step of the risk pathways**
- **Discuss risk management options based on identified risk**

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THANK YOU FOR YOUR ATTENTION

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