Lecture 9: Conducting studies

Monday, September 25, 2023

Your Teaching Fellows:

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Lectures: MWF 12:00 PM – 1:00 PM (003); 1:00 PM – 2:00 PM (004); 2:00 PM – 3:00 PM (010)
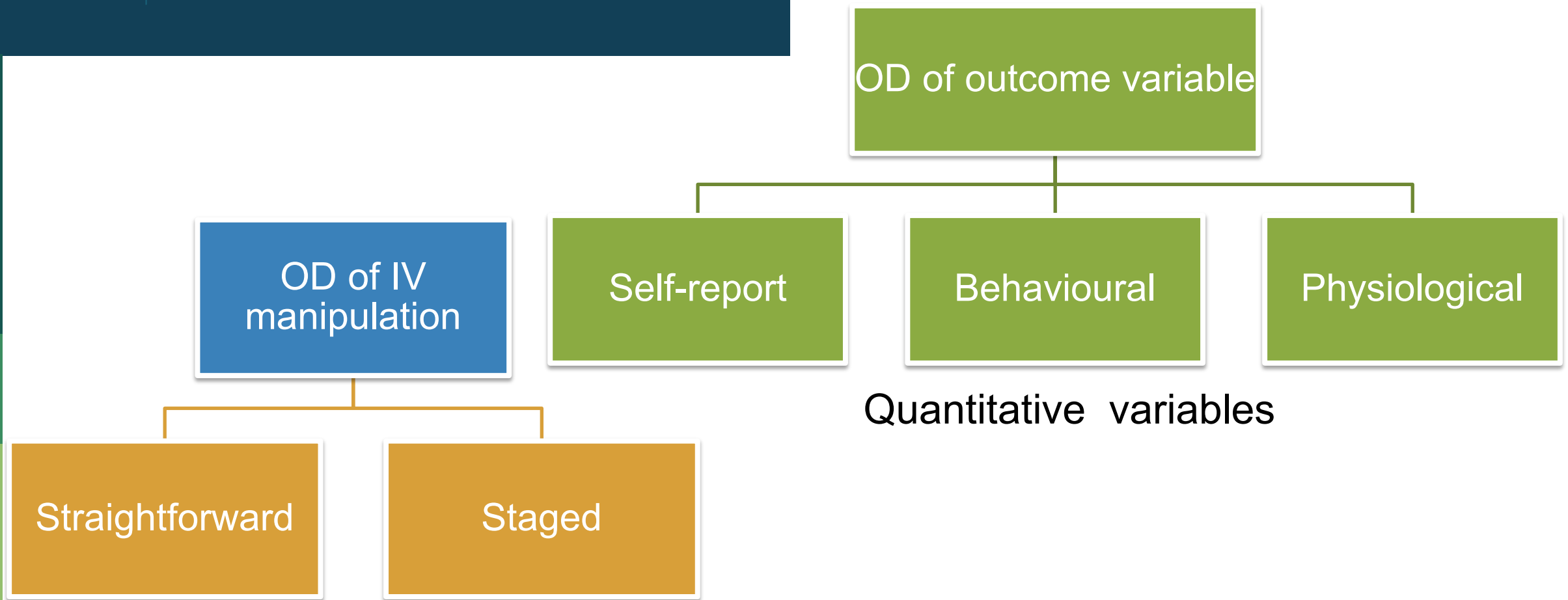Office hours: Tuesdays 2:00 PM – 4:00 PM

Review session

- October 5, 4:30-6:00, Zoom
- Lab this Friday – check your lab group, go to your lab room

Learning objectives

- By the end of next class, you should be able to
  - Discuss different types of IVs and DVs commonly used in research
  - Create different types of DVs to evaluate a claim
  - Understand the different types of between- and within-subjects designs
  - Understand the advantages and disadvantages associated with within-subjects designs
  - Manage disadvantages of within-subjects designs
  - Describe the relationship between strength of IV/sensitivity of DV and experimental designs

Key Terms

```
                                    OD of outcome variable
                                              |
          OD of IV              +-------------+-------------+
          manipulation          |             |             |
              |             Self-report   Behavioural   Physiological
     +--------+--------+
     |                 |              Quantitative  variables
Straightforward     Staged
```

Manipulating the IV: Straightforward Manipulation

- Simple and easy

- Present participants with something that will influence DV

- Examples:
  - Music → Mood
  - Movies → Heart rate

Manipulating the IV: Staged Manipulation

- Try to indirectly elicit a state

- Make participants feel like they're in the situation

- Example:
  - Using confederates to make participants feel excluded
  - Diffusion of responsibility studies

Which one should you use?

Straightforward manipulations

- PRO: Simple, easy

- PRO: Very common

- CON: Can be too artificial

- CON: Demand characteristics

Staged manipulations

- PRO: Better simulation

- PRO: Can avoid demand characteristics

- CON: May arouse suspicious

- CON: Can be difficult to proceed as planned

How to tell if manipulation worked?

▪ Manipulation check: a method by which researchers can quantify the effectiveness of a manipulation
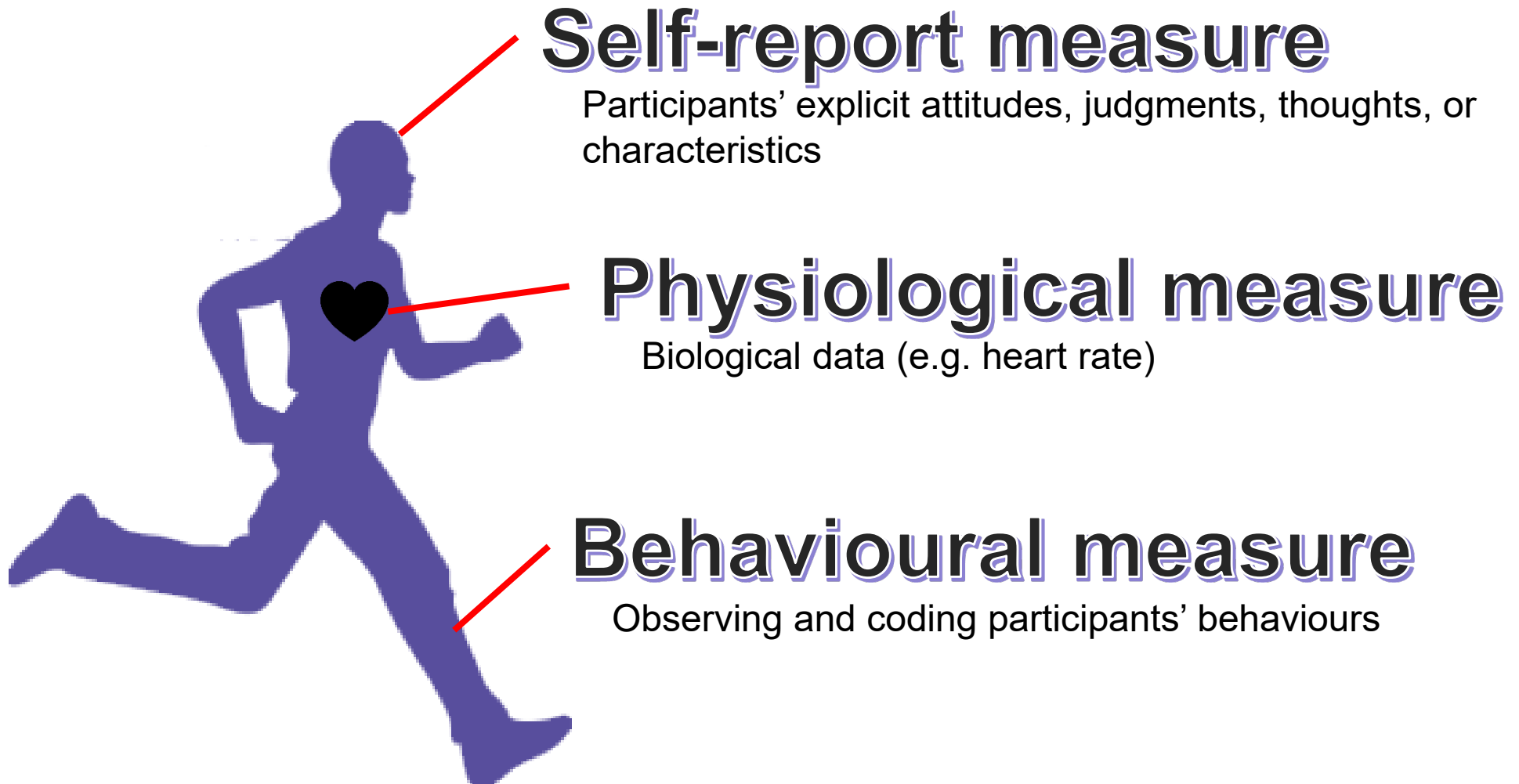
Condition I

→ Seen as more violent?

Condition II

→ Seen as less violent?

Types of measures

Self-report measure
Participants' explicit attitudes, judgments, thoughts, or characteristics

Physiological measure
Biological data (e.g. heart rate)

Behavioural measure
Observing and coding participants' behaviours

Your turn! – Idea blitz

Self-Report:	Behavioural:	Physiological:
-	-	-

How do we ask questions
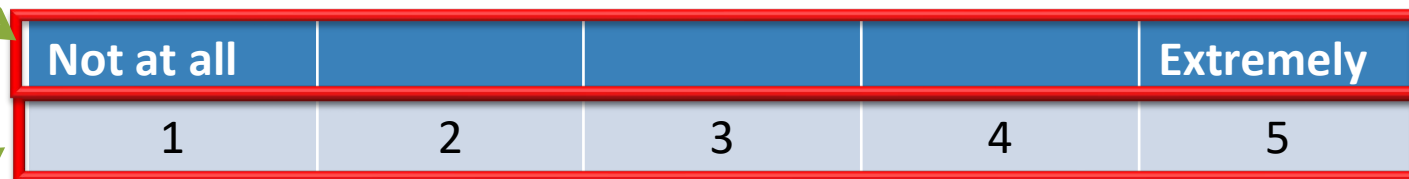
- Open-ended questions

- Closed-ended questions

Rating scales

- Rating scales often ask participants about "degrees" of judgments

Anchors/Labels

How anxious do you feel right now?

Not at all				Extremely
1	2	3	4	5

Numbers/Alternatives

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

Likert scale vs. Likert-type scale

Considerations for rating scales

- ## How many numbers/alternatives do you provide?

1	2	3	4

1	2	3	4	5	6	7

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

- ## How many anchors/labels do you provide?

None	A little	Some	More than some	Some more than some	I DON'T KNOW	I DON'T KNOW	NOT A LOT	LESS THAN NOT A LOT	A LOT	A WHOLE LOT
1	2	3	4	5	6	7	8	9	10	11

None					I DON'T KNOW					A WHOLE LOT
1	2	3	4	5	6	7	8	9	10	11

Considerations for rating scales

- What do you actually give as anchors?

None	A little	Some	A lot
1	2	3	4

None	Sometimes	Often	Always
1	2	3	4

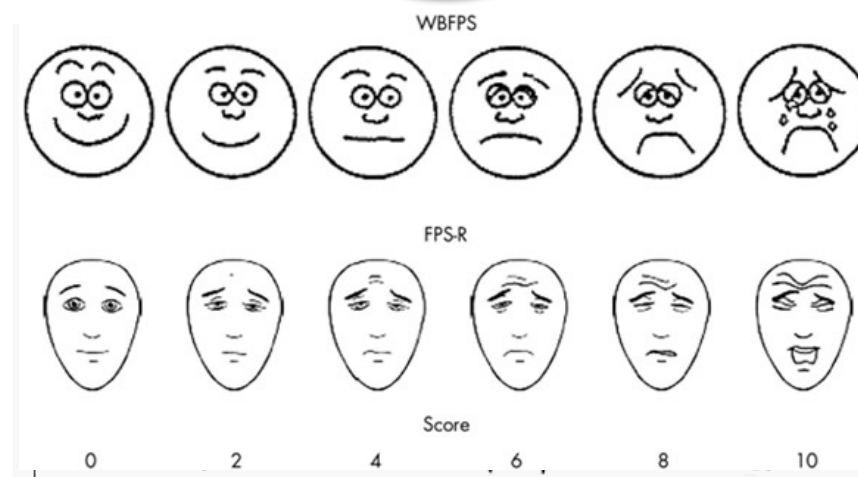| None	Some	A lot	Extreme amount
1	2	3	4

Other types of scales…

- Semantic differential scale

Donald Trump is…

Great president									Greatest president

- Non-verbal scale

WBFPS

FPS-R

Score

0   2   4   6   8   10

Other types of scales...

- Forced choice

"On Saturday nights, I like to:
__ Pillage an abandoned farm
__ Get hammered like nobody's business
__ Party like it's 2009
__ Cry into my tub of Ben & Jerry's ice cream alone in the dark
__ CAT VIDEOS
__ Watch Brooklyn 9-9 marathons"

5. On which issues does the mainstream media do the worst job of representing Republicans? (Select as many that apply.)

☐ Immigration

☐ Economics

☐ Pro-life values

☐ Religion

☐ Individual liberty

☐ Conservatism

☐ Foreign policy

☐ Second Amendment rights

More considerations...

- Issues to keep in mind when writing questions:
  - Double-barreled questions
  - Loaded/leading questions
  - Negative wording
  - Yea-saying/nay-saying
  - Fence-sitting

How not to create a survey
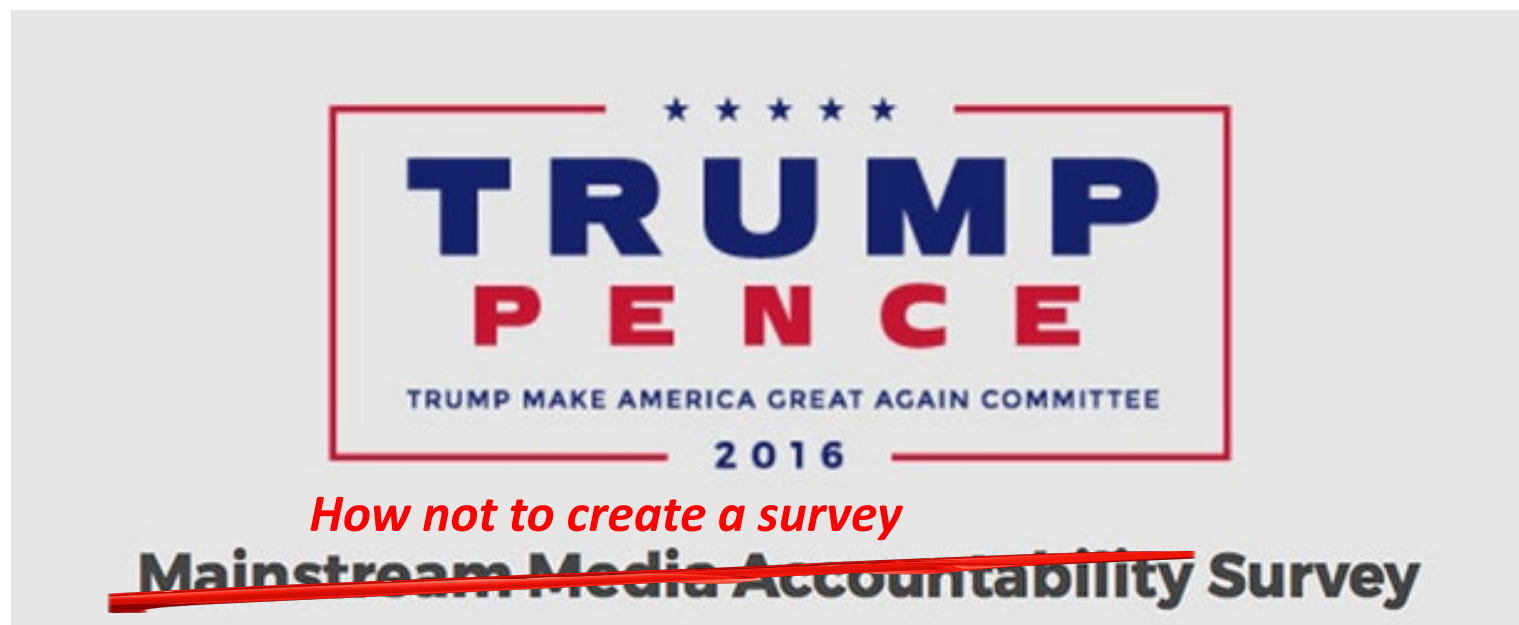
Double-barreled questions

13. Do you believe that political correctness has created biased news coverage of both illegal immigration and radical Islamic terrorism?

   ○ Yes

   ○ No

   ○ No opinion

19. Do you believe that the media uses slurs rather than facts to attack conservative stances on issues like border control, religious liberties, and ObamaCare?

   ○ Yes

   ○ No

   ○ No opinion

More considerations...

- Issues to keep in mind when writing questions:
  - Double-barreled questions
  - Loaded/leading questions
  - Negative wording
  - Yea-saying/nay-saying
  - Fence-sitting

Loaded/leading questions

1. Do you believe that the mainstream media actually cares about working Americans?

   ○ Yes

   ○ No

   ○ No Opinion

More considerations…

- Issues to keep in mind when writing questions:
  - Double-barreled questions
  - Loaded questions
  - Negative wording
  - Yea-saying/nay-saying
  - Fence-sitting

Negative wording

14. Do you believe that contrary to what the media says, raising taxes does not create jobs?

- ○ Yes

- ○ No

- ○ No opinion

- ○ Other, please specify:

More considerations…

- Issues to keep in mind when writing questions:
  - Double-barreled questions
  - Loaded questions
  - Negative wording
  - Yea-saying/nay-saying – someone who disagrees (or agrees) with all items
  - Fence-sitting

Use reverse-scored questions

- We need to have extremely strict gun control

Agree   1   2   3   4   5   Disagree

- Absolutely everyone should be free to own a gun without any checks

Agree   1   2   3   4   5   Disagree

Yay-saying – Agreeing with the questions regardless of the content

Naysaying – Disagreeing with the questions regardless of the content

Fence-sitting – Being neutral with the questions regardless of the content

More considerations…

- Issues to keep in mind when writing questions:
  - Double-barreled questions
  - Loaded questions
  - Negative wording
  - Yea-saying/nay-saying
  - Fence-sitting – someone who is "neutral" on all items

Get rid of neutral alternatives

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

Strongly disagree	Disagree	Agree	Strongly agree
1	2	3	4