

Exam is 20 points. There are 10 questions. Each question is worth 2 points. If there are sub questions, each part is worth an equal share of the 2 points.

- 1) We discussed three purposes for social science research. We have also discussed different social science research sampling methods. Below are listed three short descriptions of social science research. For each, identify which is the main purpose of the research and identify the sampling strategy used in the research.

Research Description	Purpose	Sampling Strategy
The research team is trying to identify the incidence of infection for women aged 18-35 in areas where Zika is currently prevalent in Brazil. They have worked with local health centers to identify women resident in Região Nordeste who are in this age cohort. They used a random number generator to select names from the lists. They have sent out teams to interview these women to conduct retrospective interviews of past health history, experience with any prior births (if relevant), and to collect blood samples. The goal is to assess where different diseases and disease combinations are most prevalent in different parts of the Região as a preliminary step to deciding how best to deploy resources to combat the outbreak.		
The research team is trying to assess the impact of a Sustainable Rice Intensification (SRI) technology package extended last year to rice farmers in Madagascar. A random sample of households is drawn from the official list of households in the area within 20 kilometers of Ranomafana National Park, which is surrounded by rice fields. Last year, some farmers in this area were given extensive training followed by comic books that illustrated the techniques that are associated with the SRI technology. Another group in this area was given access to credit to buy SRI inputs in advance of the season. Most farmers in this area did not have any training or special treatment regarding SRI. The research team is trying to identify any impact on adoption rates this year that the training or credit access interventions conducted last year have had.		
The research team is trying to understand the phenomenon of street children in Nairobi. Working through a church in Nairobi where many of the kids go for a noon meal, the research team is trying to understand where the kids come from and how they came to be in Nairobi. From these interviews, the team hope to be able to formulate a more structured set of questions that would allow them to more systematically contrast different factors that have led to kids in Kenya becoming street children in Nairobi in a larger sample.		

2) Elements of social theory.

a) Describe how observations led to conceptualization of *anomie* as developed by Durkheim in his study of Suicide.

b) Describe how a paradigm shift in the natural sciences influenced Spencer's conceptualization of social science.

c) Describe a structural functionalist theory of crime.

4) Measurement Issues.

Measured item	Category of this measured item (circle one)		
Weight measured by a bathroom scale I have with me to measure your weight.	Direct observable	Indirect observable	Construct
Roofing material of a house I am standing in front of and looking at.	Direct observable	Indirect observable	Construct
Your answer to my question about the names of all pets you have had since you were 5 years old.	Direct observable	Indirect observable	Construct
Answers to questions to identify whether your personality type more a 'cat person' or a 'dog person'.	Direct observable	Indirect observable	Construct
Your response to my question about the number of times you have received a stamp in your passport in the last 12 months.	Direct observable	Indirect observable	Construct
Your assessment of the overall professionalism of TSA agents in Syracuse you have dealt with over the past 12 months.	Direct observable	Indirect observable	Construct
I look at you and answer the question do you have braces on your teeth currently?	Direct observable	Indirect observable	Construct
Your response when I ask you, did you ever have braces on your teeth?	Direct observable	Indirect observable	Construct

5) Index and scale issues.

Assume you have results from 4 survey responses to questions about the importance of research methods in graduate education.

Approach A

Statement	Responses (Circle One)	
A research methods class is an essential to the graduate education curriculum in all social sciences.	Agree	Disagree
A research methods class is essential to the graduate education curriculum in International Relations.	Agree	Disagree
A research methods class is a useful class for students who intend to understand International Relations at the graduate level.	Agree	Disagree
A research methods class is useful class for IR students who intend to conduct research professionally following their education.	Agree	Disagree

a) Explain how you could use these responses to construct an index and how you could use them to construct a scale.

b) What is the name of the type of scaling used in construction of the version of the question posed below?

Approach B

Statement	Responses (Circle one)				
A research methods class is an essential to the graduate education curriculum in all social sciences.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A research methods class is essential to the graduate education curriculum in International Relations.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A research methods class is a useful class for students who intend to understand International Relations at the graduate level.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A research methods class is useful class for IR students who intend to conduct research professionally following their education.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

c) Contrast the way of posing the question using Approach A with Approach B in terms of advantages and disadvantages of each approach.

6) True or False.

Statement	Is it True of False (circle)	
Anonymity means a given response cannot be linked to a given respondent even by the researcher.	True	False
Nomothetic explanation seeks an exhaustive understanding of the causes producing events and situations in a single or limited number of cases.	True	False
A convenience sample is an example of an equal probability of selection method.	True	False
The inductive method begins by specifying a theory that leads to a testable hypothesis.	True	False
Concepts such as height and are weight measurable in tangible way.	True	False
The deductive method begins with a set of observations, and analyses these observations to find patterns in the data.	True	False
A trend study monitors a given characteristic of some population over time.	True	False
Comte argued society could be observed and explained logically and rationally through scientific study.	True	False

7) Measures.

Item measured	What kind of measure is it? (circle)			
Citizenship	Nominal	Ordinal	Interval	Ratio
IQ	Nominal	Ordinal	Interval	Ratio
Age	Nominal	Ordinal	Interval	Ratio
(Degree of) Support of Free Trade	Nominal	Ordinal	Interval	Ratio
Place of birth	Nominal	Ordinal	Interval	Ratio
Openness to allowing Syrian immigrants to settle in New York	Nominal	Ordinal	Interval	Ratio
Number of Graduate School Credits earned to date	Nominal	Ordinal	Interval	Ratio
Amounts in your checking accounts today.	Nominal	Ordinal	Interval	Ratio

8) Evaluating measures.

- a. The Pentagon is training rats to detect explosives for demining operations. In one of the first trials, Satin rats were found to be able to detect 14 out of 100 mines in the training field, while identifying what they thought were mines but were really rocks 54 times. African rats were able to detect 85 out of 100 mines while identifying what they thought were mines but were really rocks 5 times. Contrast the Satin rat with the African rat in terms of validity and reliability.

- b. Contrast the following concepts: Criterion related / predictive validity and content validity. The object in question is an application packet to the MAIR program. We are using materials from the application to make admissions decisions. We have GRE scores, transcripts, personal statements, recommendation letters. How do different elements of this application packet illustrate these two different concepts of validity?

9) Assign the name of the scale to the description.

Put name of scale here	Description of scale
	A scale that is based on the idea that people who support a strong indicator of a variable will also support weaker indicators of this variable.
	Results from questions that pair two opposite adjectives and have respondents place their reaction on their degree of closeness to either adjective.
	Captures the willingness of people to participate in social relations of varying degrees of closeness with other kinds of people.
	Symmetric scale centered on zero that captures a range of responses both negative and positive
	A type of composite measure where weights are assigned by 'judges' to assess the strength of particular indicators

