

MASARYK UNIVERSITY
FACULTY OF SOCIAL STUDIES

10. workshop
CONCEPTUALIZATION, OPERATIONALIZATION AND MEASUREMENT

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1. INTRODUCTION

In this chapter the author is discussing the process how a researcher can move from a general idea to “effective and well-defined measurements in the real world” (Babbie 2001: 119). The concepts being studied here are Conceptualization, Operationalization and Measurement.

Moreover the author is showing the way how we can measure things that actually do not exist, such as love, hate, religiosity, alienation etc.

2. MEASURING ANYTHING THAT EXISTS

The main problem the author is exposing is the fact that variables in social science do not exist in the same way as in real life. For example, the feelings and the opinions are not as visible as a rock. Furthermore he is giving example of the ways to study political party affiliation and the connection between the way of study and the result given at the end (the results can be different even though it is the same thing because of the way we study it). Also the terms like party affiliation or religious affiliation etc. are made up “and assigned specific meanings to for some purpose, such as doing social research” (ibidem).

The reason for discrepancy can lay in the mental images people have. “Each of us develops our own mental image of what the set of real phenomena we are observed represents in general and what these phenomena have in common” (Babbie 2001: 120). And also every person has a different mental sheet and it is consisted of what people have been told and of what they have observed. These mental maps are called conceptions and the “process of coming to an agreement about what terms mean is conceptualization and the result is called a concept” (ibidem). So considering all this, one has to make sure that the meanings of different concepts are being agreed, so that one can make a research in a proper way (e.g. all the people we ask about prejudice must know what we think by this word, so that the research will be correct and that we will find out what their real opinion is).

Abraham Kaplan distinguishes three classes of things that scientists’ measure and these are (Babbie 2001: 121):

- Direct observables (things that can be observed simply and directly),

- Indirect observables (things that require subtle, complex, indirect observation),
- Observables consistent of constructs (theoretical creations based on observations that cannot be observed directly or indirectly – e.g. IQ).

“The bridge from direct and indirect observables to useful constructs is the process called conceptualization” (ibidem).

3. CONCEPTUALIZATION

This term is used for specifying what we mean when we use particular term. Moreover, conceptualization “produces a specific agreed-upon meaning for a concept for the purposes of research” (ibidem). It gives “definite meaning to a concept by specifying one or more indicators of what we have in mind. An indicator is a sign of the presence or absence of the concept we are studying” (Babbie 2001: 123).

Here the author gives an example of interaction with cult in order to establish what their perception of the term compassion is (they may see violent acts as compassionate). Furthermore the researcher should give attention to the meanings given to words and actions by the people under study so that he/she could find out what he/she wants. Concepts can be understood in different contexts, so that is the reason, concepts are grouped into dimensions (e.g. we can speak of compassion for humans versus compassion for animals and so on).

The author is explaining how it is possible to study one thing although we have not reached the agreement which indicators are the right ones. We can solve this problem by studying all the indicators (also those we do not consider the right ones). For example if we would study compassion among men and women and would not agree on indicators which are showing the compassion we could still study all of them. And if men and women turned out to be compassionate we would be able to agree that one are more compassionate than the others even though we disagree on what compassion means in general. This is called interchange-ability of indicators and it means “that if several different indicators all represent, to some degree, the same concept, then all of them will behave the same way that the concept would behave if it were real and could be observed” (Babbie 2001: 124).

We distinguish three definitions. First is real definition which is “a statement of the “essential nature” or the “essential attributes” of some entity” (ibidem). Next one is nominal definition that is “assigned to a term without any claim that the definition represents a “real” entity (Babbie 2001: 125). Last one is operational definition which “specifies precisely how a concept will be measured” (ibidem).

The author is then giving the example of how one can study the socioeconomic status. He starts with two questions, when he gets the data he organizes them (uses categories for the income), uses educational categories. Then he is talking about the importance of a clear definition, because even if others disagree with the conceptualization and Operationalization, “the definition would have one essential scientific virtue: It would be absolutely specific and unambiguous” (Babbie 2001: 126).

Furthermore the author is showing the measurement steps which are:

Conceptualization



Nominal Definition



Operational Definition



Measurement in the Real World

Next the author is giving an example of conceptualization through Durkheim’s study of suicide. Durkheim studied suicide using government publications and he drew “conclusions about individualistic and personal act without having any data about individuals engaging in it” (ibidem). He used the concept of anomie as a characteristic of societies, other social scientists after him have used it to describe individuals.

The author is also saying that it is useful to use established measures (measures which somebody has used before you) because they have been extensively pretested and debugged and moreover you can compare your results with the previous ones.

4. DEFINITION IN DESCRIPTIVE AND EXPLANATORY STUDIES

First of all we have to say that “definitions are more problematic for descriptive research than for explanatory research” (Babbie 2001: 129). The example given is the definition of unemployment rate. We have to think about which definition would be the most suitable for studying unemployment rate (e.g. the age of people, the definition of working people, who is unemployed, students? Retired people? Etc.).

On the other hand there are explanatory studies. We read about studying political conservatism and the problem if two people have for example 25 different operational definitions of conservatism and can not agree on the most suitable definition. But if all 25 definitions show conservatism than we can conclude that for example, one group is more conservative than the other even though we could not agree about exact definition of conservatism.

5. OPERATIONAL CHOISES

Operationalization is “the development of specific research procedures (operations) that will result in empirical observation representing those concepts in the real world” (Babbie 2001: 132).

So, when studying some concepts we must think of the range of variation we would like to study. One should consider what he wants to study and then pick up one or more aspects of the studied and not the whole range of variation in every case. Furthermore you have to know which population is supposed to be under study, so that you do not study the population which is not representative for your case. Moreover if you are not sure “how much detail to pursue in a measurement, get too much (data) rather than too little” (Babbie 2001: 133).

Another suggestion the author gives is to be totally clear about the dimensions you use for your study, so that you will get the things you want.

Furthermore the author is writing about defining variables and attributes. Attitude is a “characteristic or quality of something” (Babbie 2001: 134). On the other hand,

“variables are logical sets of attributes” (ibidem). Moreover “the conceptualization and operationalization can be seen as the specification of variables and the attributes composing them” (ibidem).

Variables must have 2 qualities:

- Attributes composing it should be exhaustive,
- We must be able to classify every observation in terms of one of the attributes composing the variable (ibidem).
- And attributes “composing a variable must be mutually exclusive, meaning that every observation must be able to be classified in terms of one and only one attribute” (ibidem) (e.g. we have to define unemployment and employment in such a way that a person can not be both at the same time).

The author is also writing about 4 levels of measurement and this are:

- Nominal measure: variables whose attributes have only the characteristics of exhaustiveness and mutual exclusiveness (e.g. gender, religious affiliation, birth place),
- Ordinal measures: variables with attributes we can logically rank-order (e.g. social class, alienation, prejudice),
- Interval measures: logical distance between attributes can be expressed in meaningful standard intervals (e.g. Fahrenheit scale)
- Ration measures: the attributes composing a variable are based on a true zero (e.g. age, number of times attending church) (Babbie 2001: 135).

Moreover the author is showing us that age can be ratio, ordinal and also nominal variable depends on the study. Age is ration measure but “if you wish to examine the relationship between age and some ordinal-level variable – say, self-perceived religiosity: high, medium and low – you might choose to treat age as an ordinal-level variable as well” (Babbie 2001: 136). Age can also be nominal-level variable if we decide to group people by astrological signs.

At the end the author is giving the examples of operational choices we have when studying certain case.

6. BIBLIOGRAPHY

Babbie, Earl. 2001. *The Practice of Social Research*. Belmont: Wadsworth Publishing Company; Chapter 5: “The Idea of Causation in Social Research”, s. 118-140.