Measurement and Attitude Scaling

**CONCEPT**
A generalized idea about a class of objects, attributes, occurrences, or processes.

**OPERATIONAL DEFINITION**
A definition that specifies what the researcher must do to measure the concept under investigation.

**SCALE**
- SERIES OF ITEMS
- ARRANGED ACCORDING TO VALUE
- FOR THE PURPOSE OF QUANTIFICATION
- A CONTINUOUS SPECTRUM
SCALE PROPERTIES

- UNIQUELY CLASSIFIES
- PRESERVES ORDER
- EQUAL INTERVALS
- NATURAL ZERO

Determining a Good Measurement Scale

- Reliability
- Validity
- Sensitivity

Reliability and Validity

- Low Reliability (Target A)
- High Reliability (Target B)
- Reliable but Not Valid (Target C)

Sensitivity

Ability of measurement device to measure a range of different levels.

- e.g. Inensitive Scale: Agree vs. Disagree
- Sensitive Scale: Strongly Agree, Mildly Agree, Neutral, Mildly Disagree, Strongly Disagree
Measuring Attitude

An enduring disposition to consistently respond in a given manner.

Attitudes is a Hypothetical Construct

A hypothetical construct is not directly observed.

It must be measured indirectly through answers to questions or observed behavior.

THREE COMPONENTS OF AN ATTITUDE

- AFFECTIVE
- COGNITIVE
- BEHAVIORAL

AFFECTIVE

THE FEELINGS OR EMOTIONS TOWARD AN OBJECT
The Attitude Measuring Process

- **RANKING** - Rank order preference
- **RATING** - Estimates magnitude of a characteristic
- **SORTING** - Arrange or classify concepts
- **CHOICE** - Selection of preferred alternative
Ranking tasks require that the respondent order a small number of objects in overall performance on the basis of some characteristic or stimulus.

Which is Best?

Rating asks the respondent to estimate the magnitude of a characteristic, or quality, that an object possesses. The respondent's position on a scale(s) is where he or she would rate an object.

How much do you like it?

Sorting might present the respondent with several concepts typed on cards and require that the respondent arrange the cards into a number of piles or otherwise classify the concepts.

Which ones go together?

Choice between two or more alternatives is another type of attitude measurement - it is assumed that the chosen object is preferred over the other.

If you had to which one would you choose?
Physiological measures of attitudes provide a means of measuring attitudes without verbally questioning the respondent. For example, galvanic skin responses, measure blood pressure etc.

Are you acting differently?

Simple Attitude Scaling

In its most basic form, attitude scaling requires that an individual agree with a statement or respond to a single question.

This type of self-rating scale merely classifies respondents into one of two categories;

SIMPLIFIED SCALING EXAMPLE

THE PRESIDENT SHOULD RUN FOR RE-ELECTION

AGREE          DISAGREE

Category Scales

- A category scale is a more sensitive measure than a scale having only two response categories - it provides more information.

- An extremely important factor in the usefulness of these scales is that the questions work.
### EXAMPLE OF CATEGORY SCALE

How important were the following in your decision to visit San Diego (check one for each item)

<table>
<thead>
<tr>
<th></th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Not Too Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of Travel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Oriented</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational/Historical Aspects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Familiarity with Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Method of Summated Ratings:
The Likert Scale

- An extremely popular means for measuring attitudes. Respondents indicate their own attitudes by checking how strongly they agree or disagree with statements.
- Response alternatives: “strongly agree”, “agree”, “uncertain”, “disagree”, and “strongly disagree”.

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#### Likert Scale for Tennis

It is more fun to play a tough, competitive tennis match than to play an easy one.

- ___ Strongly Agree
- ___ Agree
- ___ Not Sure
- ___ Disagree
- ___ Strongly Disagree

#### Semantic Differential

A series of seven-point bipolar rating scales.

Bipolar adjectives, such as “good” and “bad”, anchor both ends (or poles) of the scale.

A weight is assigned to each position on the rating scale.

Traditionally, scores are:

- 7, 6, 5, 4, 3, 2, 1, or +3, +2, +1, 0, -1, -2, -3.
SEMANTIC DIFFERENTIAL
SCALES FOR TENNIS


Stapel Scales

- Staple scale allow intensity statement about a single adjective (descriptor).
- The results of Stapel scales are very similar to those for a semantic differential.
- However, the Stapel scale tends to be easier to conduct and administer (particularly over the phone).

A Stapel Scale for Store Image

Bloomingdale’s
+3
+2
+1

Wide Selection
-1
-2
-3

Stapel Scales

- The more accurately you think the word describes the store, the larger the positive number you should choose.
  - +3 = store with a very wide selection

- The less accurately you think the word describes the store, the larger the minus number you should choose.
  - -3 = store with a very narrow selection
Constant-sum Scale

Divide 100 points among each of the following brands according to your preference for the brand:

Brand A
Brand B
Brand C

Graphic Rating Scales

A graphic rating scale presents respondents with a graphic continuum.

Seating comfort:
Not important ______________________ Very Important

Graphic Rating Scale With Pictures

3 2 1
Very Good

Behavioral Intention

- How likely are they to behave in a certain way?
- How likely is it that you will purchase a DVD player in the next six months?
- Definitely will buy
- Probably will buy
- Might buy
- Probably will not buy
- Definitely will not buy
Paired Comparisons

- Pick the product, from the pair, that is preferred.
- Easy to do.
- If you have a lot of products to compare, there will be a very, very large number of paired comparisons.