What is the Likert Scale?

A Likert Scale is a type of rating scale used to measure attitudes or opinions. With this scale, respondents are asked to rate items on a level of agreement. Five to seven items are usually used in the scale. The scale doesn't have to state "agree" or "disagree"; dozens of variations are possible on themes like agreement, frequency, quality and importance. For example:

- **Agreement**: Strongly agree to strongly disagree.
- **Frequency**: Often to never.
- **Quality**: Very good to very bad.
- **Likelihood**: Definitely to never.
- **Importance**: Very important to unimportant.

These items are called *Likert Scale Response Anchors*.
Once the respondents have answered, numbers are assigned to the responses. For example:
Strongly agree=5
Agree=4
Neutral=3
Disagree=2
Strongly disagree=1

Steps to Developing a Likert Scale

1. **Define the focus**: what is it you are trying to measure? Your topic should be one-dimensional. For example "Customer Service" or "This Website."
2. **Generate the Likert Scale items.** The items should be able to be rated on some kind of scale. The image at the top of this page has some suggestions. For example, polite/rude could be rated as "very polite", "polite", "not polite" or "very impolite." Politeness could also be rated on a scale of 1 to 10, where 1 is not polite at all and 10 is extremely polite.
3. **Rate the Likert Scale items.** You want to be sure your focus is good, so pick a team of people to go through the items in step 2 above and rate them as favorable/neutral/unfavorable to your focus. Weed out the items that are mostly seen as unfavorable.
4. **Administer your Likert Scale test**.

Statistics Choices

Statistics you can use are:

- The <u>mode</u>: the most common response.
- The <u>median</u>: the "middle" response when all items are placed in order.
- The <u>range</u> and <u>interquartile range</u>: to show variability.
- A <u>bar chart</u> or <u>frequency table</u>: to show a table of results. **Do not <u>make a histogram</u>**, as the data is not continuous.

The mean in a Likert scale can't be found because you don't know the "distance" between the data items. In other words, while you can find an average of 1,2, and 3, you can't find an average of "agree", "disagree", and "neutral."

EG:

Thurstone Scale: Definition

Thurstone scale is defined as a unidimensional scale that is used to track respondent's behavior, attitude or feeling towards a subject. This scale consists of statements about a particular issue or topic where each statement has a numerical value that indicates the respondent's attitude towards the topic as favorable or unfavorable. Respondents indicate the statements that they agree with, and an average is computed. A mean score of the agreements or disagreements is calculated as the attitude of the respondent towards the topic.

This scale was developed by Robert Thurstone to approximate measurement in equal-appearing interval levels. The Thurstone scale is built upon the fundamentals of the Likert scale, but this method of constructing an attitude scale not only takes value of each item of into consideration while evaluating the final attitude score but also caters to neutral items.

There are three scales while talking about the Thurstone scale question but the most commonly used method is the equal appearing intervals and hence the scale is also called the equal-appearing interval scale. The two other are slightly more complex to develop but still result in the same agree/disagree quiz question type; they are the **method of successive intervals** and the **method of paired comparisons**.

Characteristics of a Thurstone Scale Question

Some distinct characteristics of a Thurstone scale question are:

- **They are two stepped:** A Thurstone scale question is never administered at the first iteration stage without the rating by judges. This is an important characteristic of this question as the options that a respondent sees are weighted and there is consensus of them being in the survey.
- **Mean or median is always calculated:** Since each option is weighted, the mean or median is calculated for each option. This also forms the basis of the selection method for use in the final survey.
- **Only agree or disagree options:** The respondent makes a selection only on the basis of the agreement or disagreement with the statement.

Use of a Thurstone Scale Survey

The Thurstone scale survey is used to measure the respondents attitudes on a particular subject. The scale can be applied to a wide range of market research surveys, in market research including:

- **Surveys that measure opinions:** The Thurstone scale question produces quantifiable data about the measures of strength of the respondents opinions.
- **Those that gauge attitudes or feelings:** This scale is used effectively in <u>customer satisfaction</u> to predict future purchasing trends and in <u>employee engagement</u> to calculate turnover.

Eg:

1. For each statement, circle the number that indicates the degree of favorableness of the statement toward the attitude object.

Extremely unfavorable				Neutral					Extremely favorable			
1	2	3	4	5	6	7	8	9	10	11	a.	Abortion weakens the moral fiber of our society.
1	2	3	4	5	6	7	8	9	10	11	b.	Adoption is a good alternative to abortion.

2. For each statement, circle the letter that indicates the degree of favorableness of the statement toward the attitude object.

Extremely unfavorable				Neutral					Extremely favorable			
A	B	C	D	E	F	G	H	I	J	K	a.	Abortion weakens the moral fiber of our society.
A	B	C	D	E	F	G	H	I	J	K	b.	Adoption is a good alternative to abortion.

3. For each statement, place a check mark on the adjacent line indicating the favorableness of the statement toward the attitude object.

Extremely unfavorable	Neutral	Extremely favorable		
|--------------------------|--------------------------|			a.	Abortion weakens the moral fiber of our society.
|--------------------------|--------------------------|			b.	Adoption is a good alternative to abortion.

Gender Norm Attitudes scale

Scoring | Registration | Targets | Sub-indicators

Statement	Baseline Scoring value: 3,93/7,50		Target 2016 Scoring value: 4,29/7,50		Target 2017 Scoring value: 4,50/7,50		Target 2018 Scoring value: 4,93/7,50	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
It is important that sons have more education than daughters	✓	☐	☐	✓	☐	✓	☐	✓
Daughters should be sent to school only if they are not needed to help at home.	✓	☐	☐	✓	☐	✓	☐	✓
The most important reason that sons should be more educated than daughters is so that they can better look after their parents when they are older.	✓	☐	☐	✓	☐	✓	☐	✓
If there is a limited amount of money to pay for tutoring, it should be spent on sons first.	✓	☐	✓	☐	☐	✓	☐	✓