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# SAT MANUAL

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NON-GRANT GROUP NO.:04



# **SOCIAL ANXIETY TEST (SAT)**

## **MANUAL**

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# **SOCIAL ANXIETY SCALE (SAT) MANUAL**

## **INTRODUCTION**

Do you find yourself nervous when people surround you or when you are in the crowd? Do you get nervous to face people? If so, then it could be social anxiety. Social anxiety in simple terms means fear of social settings. A person with social anxiety has a constant fear of getting misjudged, embarrass or anything which makes you anxious in a social setting. They may avoid social gatherings or being in a crowd. The test SAT – Social Anxiety Test which we have developed studies about how often people get anxious in a social setting and what type of social setting make them anxious.

There are many other tests that study social anxiety, but we developed an improvised version of this scale that matches the current changes in the society. Some other definition of social anxiety is as follows-

- According to the dictionary of APA- American Psychological Association:

‘Fear of social situations in which embarrassment may occur (e.g. Making conversation, meeting strangers, dating) or there is a risk of being negatively evaluated by others (e.g. seen as stupid, weak or anxious). Social anxiety involves apprehensiveness about one’s social status, role and behavior. Then the anxiety causes an individual significant distress or impairment in functioning, a diagnosis of social phobia may be warrant.’

- Definition by Paula Barrett, Marita Cooper, in Social Anxiety (Third Edition), 2014

Social anxiety is best described as a continuum of anxious symptomatology ranging from shyness and social fears to clinically diagnosable SAD (formerly social phobia).

- Definition by William C Shiel Jr. MD, FACP, FACR:

Social anxiety is an excessive fear of embarrassment in social situations that is extremely intrusive and can have debilitating effects on personal and professional relationships and is also called social phobia.

- Thomas A. Richard a psychologist has defined social anxiety as:

‘The fear of being judged and evaluated negatively by other people, leading to the feeling of inadequacy, inferiority, self-consciousness, embarrassment, humiliation and depression.’

Our test is developed only to measure social anxiety in general, so any other interpretation cannot be made through this test scores.

## ITEM ANALYSIS:

After items for each dimension, had been created a preliminary administration was done with a sample of 174 individuals. Only 165 individual responses were chosen for the test and 9 individual responses were found to be invalid.

The original version of the test had 25 items with no domains

The method used for the item analysis was Item- Total correlation i.e. observing the correlation coefficient of each item with the total score of the test.

After item-total correlation 20 items made it to the final version of the test

The item total correlation coefficient is as follow:

| Item-Total Statistics |                                  |                                      |  |  |
|-----------------------|----------------------------------|--------------------------------------|--|--|
|                       | Scale Mean<br>if Item<br>Deleted | Scale<br>Variance if<br>Item Deleted | Corrected<br>Item-Total<br>Correlation | Cronbach's<br>Alpha if Item<br>Deleted |
| SAT-01                | 49.609                           | 211.731                              | .474                                   | .913                                   |
| SAT-02                | 49.316                           | 204.946                              | .637                                   | .910                                   |
| SAT-03                | 48.310                           | 208.169                              | .474                                   | .913                                   |
| SAT-04                | 48.920                           | 204.814                              | .614                                   | .910                                   |
| SAT-06                | 49.822                           | 199.419                              | .691                                   | .908                                   |
| SAT-07                | 49.057                           | 203.661                              | .556                                   | .912                                   |
| SAT-08                | 49.144                           | 200.806                              | .692                                   | .908                                   |
| SAT-09                | 49.494                           | 208.494                              | .466                                   | .914                                   |
| SAT-10                | 49.874                           | 210.284                              | .493                                   | .913                                   |
| SAT-12                | 49.098                           | 207.268                              | .469                                   | .914                                   |
| SAT-13                | 49.868                           | 207.665                              | .552                                   | .912                                   |
| SAT-15                | 49.736                           | 201.745                              | .678                                   | .909                                   |
| SAT-16                | 49.322                           | 204.243                              | .599                                   | .910                                   |
| SAT-17                | 49.914                           | 202.808                              | .680                                   | .909                                   |
| SAT-18                | 49.638                           | 202.094                              | .616                                   | .910                                   |
| SAT-19                | 49.506                           | 202.644                              | .585                                   | .911                                   |
| SAT-21                | 49.414                           | 206.279                              | .502                                   | .913                                   |
| SAT-22                | 49.454                           | 209.047                              | .449                                   | .914                                   |
| SAT-23                | 49.764                           | 205.568                              | .542                                   | .912                                   |
| SAT-24                | 49.833                           | 205.596                              | .568                                   | .911                                   |

Hence, the final items were as follows: 1,2,3,4,6,7,8,9,10,12,13,15,16,17,18,19,21,22,23,24

Deleted items are: 5,11,14,20,25

## DESCRIPTION OF THE TEST:

The Social Anxiety Test (SAT) is a measure of Social Anxiety. It has a total of 20 items with no domains.

“Social anxiety is the fear of being judged and evaluated negatively by other people, leading to the feelings of inadequacy, inferiority, self-consciousness, embarrassment, humiliation, and depression.”

## SCORING AND ADMINISTRATION-

The SAT is a self-report test. Subjects are asked to read each statement carefully and mark their responses on a five-point scale (Always, Often, Sometimes, Rarely and Never) based on how the statement applies to them.

Both positive as well as reverse score items are included in the test.

The scores for each response category are as follows:

| Positive items | Response Category | Negative Items |
|----------------|-------------------|----------------|
| 5              | Always            | 1              |
| 4              | Often             | 2              |
| 3              | Sometimes         | 3              |
| 2              | Rarely            | 4              |
| 1              | Never             | 5              |

Higher scores indicate higher social anxiety.

The positive and negative items are as follows:

| Positive Items                                | Negative Items |
|---|----------------|
| 1,2,3,4,5,6,7,8,10,12,13,14,15,16,17,18,19,20 | 9,11           |

## RELIABILITY

Reliability in a psychological study/research refers to the consistency in measuring a test or a research. Furthermore, if findings in a research study are replicated consistently then the study is said to be reliable. Similarly, reliability is highly important in this research done on social anxiety to test if the study fulfills its aims and hypothesis while ensuring that the results are due to the study alone and not because of extraneous variables. One of the ways that the study can ensure reliability is through retesting, that is exactly how this research was carried out.

Similarly, the following below contains the statistics/tables for reliability. Any research that has 0.7-0.8 and above Cronbach's Alpha score is said to be reliable. Cronbach's Alpha refers to the measure of internal consistency hence is a measure of reliability.

**Case Processing Summary**

|       |                       | N   | %     |
|-------|-----------------------|-----|-------|
| Cases | Valid                 | 199 | 99.5  |
|       | Excluded <sup>a</sup> | 1   | .5    |
|       | Total                 | 200 | 100.0 |

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .914             | 20         |

The number of participants were 201 out of which 1 was excluded due to data inconsistency. In terms of items, there were 20 items and the score was 0.914 which confirms its reliability.

# VALIDITY

The concept of validity was formulated by Kelly (1927, p. 14) who stated that a test is valid if it measures what it claims to measure.

For example, a test of intelligence should measure intelligence and not something else (such as memory).

A distinction can be made between internal and external validity. These types of validity are relevant to evaluating the validity of a research study / procedure.

Internal validity refers to whether the effects observed in a study are due to the manipulation of the independent variable and not some other factor and it can be improved by controlling extraneous variables, using standardized instructions, counter balancing, and eliminating demand characteristics and investigator effects.

Whereas External validity refers to the extent to which the results of a study can be generalized to other settings (ecological validity), other people (population validity) and over time (historical validity) and it can be improved by setting experiments in a more natural setting and using random sampling to select participants.

In the following test based on Social Anxiety which we conducted, we got response from 200 Subjects, we calculated it based on Criterion validity [Criterion or concrete validity is the extent to which a measure is related to an outcome. Criterion validity is often divided into concurrent and predictive validity based on the timing of measurement for the "predictor" and outcome.] and one way to assess **criterion** related **validity** is to compare it to a known standard which has already been established. We followed same methodology and our Correlation with 2 Data Sets Turned out to be HIGH: Which proves the validity of our test:)

| Correlations   |                     |                  |                  |
|--|---------------------|------------------|------------------|
|  |                     | Net Total of SAT | Net Total of SPS |
| Net Total of SAT   | Pearson Correlation | 1                | .683**           |
|  | Sig. (2-tailed)     |                  | .000             |
|  | N                   | 200              | 200              |
| Net Total of SPS   | Pearson Correlation | .683**           | 1                |
|  | Sig. (2-tailed)     | .000             |                  |
|  | N                   | 200              | 200              |
| **. Correlation is significant at the 0.01 level (2-tailed). |                     |                  |                  |

## NORMS

The sample taken to establish the norms showed more inclination towards social anxiety hence the data was not normally distributed. Total sample was 200 across the age group of 18-25. Since there was no significant difference in relation to gender and age, therefore there was no need to make separate norms for age and gender.

### DESCRIPTIVE STATISTICS:

|                    | N   | Minimum | Maximum | Mean  | Std. Deviation |
|--------------------|-----|---------|---------|-------|----------------|
| SAT                | 200 | 21      | 90      | 51.44 | 13.939         |
| Valid N (listwise) | 200 |         |         |       |                |

### **NORM TABLE: SHOWING RAW SCORE AND Z-SCORE AND T-SCORE OF SAT:**

| RAW SCORE | Z-SCORE  | T SCORE |
|-----------|----------|---------|
| 21        | -2.18385 | 28.16   |
| 22        | -2.1121  | 28.88   |
| 22        | -2.1121  | 28.88   |
| 24        | -1.96862 | 30.31   |
| 24        | -1.96862 | 30.31   |
| 25        | -1.89687 | 31.03   |
| 28        | -1.68165 | 33.18   |
| 28        | -1.68165 | 33.18   |
| 29        | -1.6099  | 33.9    |
| 29        | -1.6099  | 33.9    |
| 29        | -1.6099  | 33.9    |



|    |          |       |
|----|----------|-------|
| 29 | -1.6099  | 33.9  |
| 29 | -1.6099  | 33.9  |
| 30 | -1.53816 | 34.62 |
| 30 | -1.53816 | 34.62 |
| 31 | -1.46642 | 35.34 |
| 31 | -1.46642 | 35.34 |
| 31 | -1.46642 | 35.34 |
| 32 | -1.39468 | 36.05 |
| 33 | -1.32293 | 36.77 |
| 34 | -1.25119 | 37.49 |
| 34 | -1.25119 | 37.49 |
| 35 | -1.17945 | 38.21 |
| 36 | -1.10771 | 38.92 |
| 36 | -1.10771 | 38.92 |
| 36 | -1.10771 | 38.92 |
| 36 | -1.10771 | 38.92 |
| 36 | -1.10771 | 38.92 |
| 36 | -1.10771 | 38.92 |
| 37 | -1.03596 | 39.64 |
| 37 | -1.03596 | 39.64 |
| 37 | -1.03596 | 39.64 |
| 37 | -1.03596 | 39.64 |
| 38 | -0.96422 | 40.36 |
| 38 | -0.96422 | 40.36 |
| 38 | -0.96422 | 40.36 |
| 38 | -0.96422 | 40.36 |
| 39 | -0.89248 | 41.08 |

|    |          |       |
|----|----------|-------|
| 39 | -0.89248 | 41.08 |
| 39 | -0.89248 | 41.08 |
| 39 | -0.89248 | 41.08 |
| 39 | -0.89248 | 41.08 |
| 39 | -0.89248 | 41.08 |
| 40 | -0.82074 | 41.79 |
| 40 | -0.82074 | 41.79 |
| 40 | -0.82074 | 41.79 |
| 41 | -0.74899 | 42.51 |
| 42 | -0.67725 | 43.23 |
| 42 | -0.67725 | 43.23 |
| 42 | -0.67725 | 43.23 |
| 43 | -0.60551 | 43.94 |
| 43 | -0.60551 | 43.94 |
| 43 | -0.60551 | 43.94 |
| 43 | -0.60551 | 43.94 |
| 43 | -0.60551 | 43.94 |
| 43 | -0.60551 | 43.94 |
| 43 | -0.60551 | 43.94 |
| 43 | -0.60551 | 43.94 |
| 44 | -0.53377 | 44.66 |
| 44 | -0.53377 | 44.66 |
| 44 | -0.53377 | 44.66 |
| 44 | -0.53377 | 44.66 |
| 45 | -0.46202 | 45.38 |
| 45 | -0.46202 | 45.38 |
| 45 | -0.46202 | 45.38 |
| 45 | -0.46202 | 45.38 |



|    |          |       |
|----|----------|-------|
| 49 | -0.17505 | 48.25 |
| 49 | -0.17505 | 48.25 |
| 50 | -0.10331 | 48.97 |
| 50 | -0.10331 | 48.97 |
| 50 | -0.10331 | 48.97 |
| 50 | -0.10331 | 48.97 |
| 51 | -0.03157 | 49.68 |
| 51 | -0.03157 | 49.68 |
| 51 | -0.03157 | 49.68 |
| 51 | -0.03157 | 49.68 |
| 51 | -0.03157 | 49.68 |
| 51 | -0.03157 | 49.68 |
| 52 | 0.04018  | 50.4  |
| 52 | 0.04018  | 50.4  |
| 52 | 0.04018  | 50.4  |
| 52 | 0.04018  | 50.4  |
| 52 | 0.04018  | 50.4  |
| 52 | 0.04018  | 50.4  |
| 52 | 0.04018  | 50.4  |
| 53 | 0.11192  | 51.12 |
| 53 | 0.11192  | 51.12 |
| 53 | 0.11192  | 51.12 |
| 53 | 0.11192  | 51.12 |
| 54 | 0.18366  | 51.84 |
| 54 | 0.18366  | 51.84 |
| 55 | 0.2554   | 52.55 |
| 55 | 0.2554   | 52.55 |

|    |         |       |
|----|---------|-------|
| 55 | 0.2554  | 52.55 |
| 55 | 0.2554  | 52.55 |
| 55 | 0.2554  | 52.55 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 56 | 0.32715 | 53.27 |
| 57 | 0.39889 | 53.99 |
| 58 | 0.47063 | 54.71 |
| 58 | 0.47063 | 54.71 |
| 58 | 0.47063 | 54.71 |
| 58 | 0.47063 | 54.71 |
| 59 | 0.54237 | 55.42 |
| 59 | 0.54237 | 55.42 |
| 59 | 0.54237 | 55.42 |
| 59 | 0.54237 | 55.42 |
| 59 | 0.54237 | 55.42 |
| 59 | 0.54237 | 55.42 |
| 59 | 0.54237 | 55.42 |
| 59 | 0.54237 | 55.42 |
| 60 | 0.61412 | 56.14 |
| 60 | 0.61412 | 56.14 |
| 60 | 0.61412 | 56.14 |
| 60 | 0.61412 | 56.14 |

|    |         |       |
|----|---------|-------|
| 60 | 0.61412 | 56.14 |
| 60 | 0.61412 | 56.14 |
| 60 | 0.61412 | 56.14 |
| 60 | 0.61412 | 56.14 |
| 60 | 0.61412 | 56.14 |
| 61 | 0.68586 | 56.86 |
| 61 | 0.68586 | 56.86 |
| 61 | 0.68586 | 56.86 |
| 62 | 0.7576  | 57.58 |
| 62 | 0.7576  | 57.58 |
| 62 | 0.7576  | 57.58 |
| 63 | 0.82934 | 58.29 |
| 63 | 0.82934 | 58.29 |
| 63 | 0.82934 | 58.29 |
| 63 | 0.82934 | 58.29 |
| 64 | 0.90109 | 59.01 |
| 64 | 0.90109 | 59.01 |
| 64 | 0.90109 | 59.01 |
| 64 | 0.90109 | 59.01 |
| 64 | 0.90109 | 59.01 |
| 64 | 0.90109 | 59.01 |
| 65 | 0.97283 | 59.73 |
| 65 | 0.97283 | 59.73 |
| 65 | 0.97283 | 59.73 |
| 67 | 1.11632 | 61.16 |
| 67 | 1.11632 | 61.16 |
| 67 | 1.11632 | 61.16 |

|    |         |       |
|----|---------|-------|
| 67 | 1.11632 | 61.16 |
| 68 | 1.18806 | 61.88 |
| 68 | 1.18806 | 61.88 |
| 68 | 1.18806 | 61.88 |
| 70 | 1.33154 | 63.32 |
| 70 | 1.33154 | 63.32 |
| 70 | 1.33154 | 63.32 |
| 71 | 1.40329 | 64.03 |
| 72 | 1.47503 | 64.75 |
| 72 | 1.47503 | 64.75 |
| 72 | 1.47503 | 64.75 |
| 72 | 1.47503 | 64.75 |
| 72 | 1.47503 | 64.75 |
| 73 | 1.54677 | 65.47 |
| 73 | 1.54677 | 65.47 |
| 74 | 1.61851 | 66.19 |
| 74 | 1.61851 | 66.19 |
| 74 | 1.61851 | 66.19 |
| 75 | 1.69026 | 66.9  |
| 76 | 1.762   | 67.62 |
| 79 | 1.97723 | 69.77 |
| 80 | 2.04897 | 70.49 |
| 81 | 2.12071 | 71.21 |
| 82 | 2.19245 | 71.92 |
| 84 | 2.33594 | 73.36 |
| 86 | 2.47942 | 74.79 |
| 90 | 2.7664  | 77.66 |

## INTERPRETATION TABLE:

*Higher scores show higher Social Anxiety.*

| SCORE  | INTERPRETATION |
|--------|----------------|
| 20-23  | VERY LOW       |
| 24-37  | LOW            |
| 38-65  | AVERAGE        |
| 66-79  | HIGH           |
| 80-100 | VERY HIGH      |

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