

Desensitization Questionnaire Stuttering (DST) (Zückner 2016)

Instructions on filling in the questionnaire, evaluation and statistical data

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Field of application

The Desensitization Questionnaire Stuttering (DST) is a therapy-oriented questionnaire that measures the desensitization status of stuttering adults. It comprises 26 items subdivided into three subscales and has been standardized with a 212-strong group of stuttering adults (145 men, 67 women). It yields a total desensitization value (raw score of 0 to 104). These total raw scores are assigned to a nine-point scale (stanine scale)

For each of the three subscales (*Effect of stuttering on emotional experience / Effect of stuttering on behaviour / Effect of stuttering on higher-order areas of life*), there is a five-point scale.

Filling in the questionnaire

Filling in the questionnaire takes roughly 5 to 10 minutes.

The questionnaire is printed on pages 3 to 5 and can be filled in on paper. A pen will be additionally required.

The questionnaire can also be filled in and evaluated at the computer screen. No data on the filling-in of the questionnaire are stored. The questionnaire can also be filled in anonymously. The Web address of the DST is:

www.desensitization-questionnaire-stuttering.net

Evaluation

Evaluating the questionnaire takes roughly 5 to 10 minutes.

For the evaluation there is a scoring scheme on pages 6 to 8. The item values checked by the test subjects can then be transferred to a calculation scheme. This calculation scheme can be found on page 9.

With reference to a scale, the raw scores can be converted into percentages and degree classifications. The raw score / percentage / degree of desensitization can be found on page 10.

So that the results of the questionnaire can be saved for diagnostic and therapeutic purposes, there is a record of the results. This can be used for one's own documentation and/or handed out to the test subject.

The record of the results can be found on page 11.

Timing

The questionnaire can be filled in at the beginning of treatment, at the end of the desensitization phase, at the end of treatment or in a post-treatment control (1 to 2 years after treatment).

Statistical data and results

The investigation with the Kolmogorov-Smirnov test yielded a normal distribution. The distribution shape is symmetrical, the skew differs only little from zero ($V = .047$). The kurtosis also deviates little from zero ($W = -.776$).

Score range	0 - 104
Mean	43.35
Male mean (N=145)	43.1 (s = 21.9)
Female mean (N=67)	43.8 (s = 20.7)
Median	45
Standard deviation	21.52
Skewness	.047
Kurtosis	-.776
Minimum value	0
Maximum value	96

Reliability

The internal consistency (Cronbach's alpha) of the overall test is $\alpha = .934$.

The item discrimination was calculated for each item from the correlation of the particular item with the questionnaire's total value, with the item not contributing to the overall value (corrected discrimination). The results of the corrected item scale correlation show that there are no problematical values (values under .200). In terms of items 6 and 13, there was therefore no need to remove them from the questionnaire.

Item	Cronbach's α with item omitted	Corrected item scale correlation	Item	Cronbach's α with item omitted	Corrected item scale correlation
1	.932	.578	14	.931	.594
2	.931	.638	15	.932	.552
3	.930	.724	16	.930	.694
4	.933	.507	17	.933	.453
5	.933	.473	18	.932	.586
6	.935	.324	19	.929	.765
7	.932	.564	20	.929	.759
8	.929	.733	21	.932	.583
9	.933	.487	22	.935	.354
10	.933	.429	23	.933	.504
11	.929	.785	24	.931	.596
12	.934	.451	25	.930	.699
13	.936	.295	26	.929	.763

For the three subscales, values were also obtained for internal consistency. For the subscale “Emotional experience of stuttering”, $\alpha = .893$. For the subscale “Effect of stuttering on behaviour”, $\alpha = .616$, and for the subscale “Effect of stuttering on higher-order areas of life”, $\alpha = .863$.

After 4 weeks, the retest reliability value was $r = .86$ for the overall questionnaire (performed with 100 subjects). For the subscales, it ranges from $r = .80$ to $r = .85$.

Validity

To secure the criterion validity, the STAI (*The State-Trait Anxiety Inventory*; Laux et al. 1981) was adopted. This measures state-related anxiety and trait anxiety, which can accompany social stress due to stuttering. With 34 subjects (not in treatment), both the DST and STAI were carried out.

The correlations between the total score of the DST and state anxiety ($r = .298$, $p = .05$) and trait anxiety ($r = .408$, $p = .01$) were significant.

In addition, 3 subscales of the Derogatis Symptom Checklist (SCL-90-R., G. Franke, 2002) (*Anxiety – Insecurity in social contacts – Phobic anxiety*) were applied as a further safeguard of criterion validity. The Symptom Checklist measures the degree to which a patient suffers from mental symptoms.

The correlations between the total score of the DST and the three subscales of the Symptom Checklist were also significant: *Anxiety* ($r = .533$, $p = .01$) – *Insecurity in social contacts* ($r = .634$, $p = .01$) – *Phobic anxiety* ($r = .336$, $p = .005$).

The results show that the DST possesses convergent validity.

The two gender groups do not show significant differences in their results (males: mean: 43.1; SD: 21.9 / females: mean: 43.8; SD: 20.7).

Desensitization Questionnaire Stuttering (DST) (Ages 18 and above)

(H. Zückner 2016)

Name: _____ Age: _____ Sex: M / F _____ Date: _____

For each statement, please choose the answer that is truest for you.

- 1. When I stutter in front of family or friends, it does not usually lead to negative feelings.**

fully agree		fully disagree	

- 2. I can tell a listener/listeners about my stutter or myself as a person who stutters without having any negative feelings.**

fully agree		fully disagree	

- 3. When I stutter in front of people at my place of work/education/training (school/profession), I do not have any negative feelings.**

fully agree		fully disagree	

- 4. I usually succeed in maintaining eye contact with the listener(s) when I stutter.**

fully agree		fully disagree	

- 5. I feel uncomfortable when people talk to me about my stutter.**

fully agree		fully disagree	

- 6. I feel uncomfortable when I meet other people who stutter.**

fully agree		fully disagree	

- 7. Even when I noticeably stutter, I believe that the way I speak is acceptable for my listeners.**

fully agree		fully disagree	

- 8. I find it difficult to accept myself as a person who stutters.**

fully agree		fully disagree	

9. I find the thought of occasionally imitating stuttering (voluntary stuttering) in front of listeners uncomfortable.

fully agree fully disagree

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10. Even if I feel very uncomfortable about stuttering in a certain situation, I no longer think about it shortly afterwards.

fully agree fully disagree

--	--	--	--	--

11. Stuttering does not reduce my sense of self-worth.

fully agree fully disagree

--	--	--	--	--

12. I feel more uncomfortable about my stutter in the presence of people of higher status than me (boss, teacher, foreman...) than with other people.

fully agree fully disagree

--	--	--	--	--

13. My stutter upsets me most when I talk to people that I do not find likable.

fully agree fully disagree

--	--	--	--	--

14. I do not experience any negative feelings when listeners are briefly unsettled by my stutter, such as when they avert their eyes, smile sheepishly, look astonished...

fully agree fully disagree

--	--	--	--	--

15. I feel uncomfortable when I hear the word "stutter" or "stutterer" or have to use those words myself.

fully agree fully disagree

--	--	--	--	--

16. Because of my stutter, I feel uncomfortable a long time in advance of important situations in which I have to speak.

fully agree fully disagree

--	--	--	--	--

17. Even though I risk stuttering, I talk to strangers when I need to ask for something.

fully agree fully disagree

--	--	--	--	--

18. I believe that my stutter only slightly impairs my life at the moment and important life decisions.

fully agree fully disagree

--	--	--	--	--

19. One or more of the following feelings occur(s) frequently in connection with my stuttering: shame / sense of inferiority / self-abasement / fear of negative assessment.

fully agree fully disagree

--	--	--	--	--

20. Frustration is a feeling that I associate very strongly with my stuttering speech.

fully agree fully disagree

--	--	--	--	--

21. A lasting increase in the frequency of my stuttering would not diminish my general quality of life.

fully agree fully disagree

--	--	--	--	--

22. I very rarely avoid situations for fear of stuttering.

fully agree fully disagree

--	--	--	--	--

23. I rarely search for other words, reorganise my sentences or break off in mid-sentence to avoid stuttering.

fully agree fully disagree

--	--	--	--	--

24. I am not happy with how I cope with my stuttering.

fully agree fully disagree

--	--	--	--	--

25. Stuttering is an experience in loss of control: You cannot control when the stutter arises, how it progresses or how long it lasts. I can experience the stuttering induced loss of control without negative feelings.

fully agree fully disagree

--	--	--	--	--

26. Overall, the way I see myself as a person who stutters is as self-accepting and outwardly confident as I would like it to be.

fully agree fully disagree

--	--	--	--	--

Desensitization Questionnaire Stuttering: Scoring scheme

- 1. When I stutter in front of family or friends, it does not usually lead to negative feelings.**

fully agree					fully disagree
0	1	2	3	4	

- 2. I can tell a listener/listeners about my stutter or myself as a person who stutters without having any negative feelings.**

fully agree					fully disagree
0	1	2	3	4	

- 3. When I stutter in front of people at my place of work/education/training (school/profession), I do not have any negative feelings.**

fully agree					fully disagree
0	1	2	3	4	

- 4. I usually succeed in maintaining eye contact with the listener(s) when I stutter.**

fully agree					fully disagree
0	1	2	3	4	

- 5. I feel uncomfortable when people talk to me about my stutter.**

fully agree					fully disagree
4	3	2	1	0	

- 6. I feel uncomfortable when I meet other people who stutter.**

fully agree					fully disagree
4	3	2	1	0	

- 7. Even when I noticeably stutter, I believe that the way I speak is acceptable for my listeners.**

fully agree					fully disagree
0	1	2	3	4	

- 8. I find it difficult to accept myself as a person who stutters.**

fully agree					fully disagree
4	3	2	1	0	

9. I find the thought of occasionally imitating stuttering (voluntary stuttering) in front of listeners uncomfortable.

fully agree						fully disagree
4	3	2	1	0		

10. Even if I feel very uncomfortable about stuttering in a certain situation, I no longer think about it shortly afterwards.

fully agree						fully disagree
0	1	2	3	4		

11. Stuttering does not reduce my sense of self-worth.

fully agree						fully disagree
0	1	2	3	4		

12. I feel more uncomfortable about my stutter in the presence of people of higher status than me (boss, teacher, foreman...) than with other people.

fully agree						fully disagree
4	3	2	1	0		

13. My stutter upsets me most when I talk to people that I do not find likable.

fully agree						fully disagree
4	3	2	1	0		

14. I do not experience any negative feelings when listeners are briefly unsettled by my stutter, such as when they avert their eyes, smile sheepishly, look astonished...

fully agree						fully disagree
0	1	2	3	4		

15. I feel uncomfortable when I hear the word "stutter" or "stutterer" or have to use those words myself.

fully agree						fully disagree
4	3	2	1	0		

16. Because of my stutter, I feel uncomfortable a long time in advance of important situations in which I have to speak.

fully agree						fully disagree
4	3	2	1	0		

17. Even though I risk stuttering, I talk to strangers when I need to ask for something.

fully agree						fully disagree
0	1	2	3	4		

- 18. I believe that my stutter only slightly impairs my life at the moment and important life decisions.**

fully agree					fully disagree
0	1	2	3	4	

- 19. One or more of the following feelings occur(s) frequently in connection with my stuttering: shame / sense of inferiority / self-abasement / fear of negative assessment.**

fully agree					fully disagree
4	3	2	1	0	

- 20. Frustration is a feeling that I associate very strongly with my stuttering speech.**

fully agree					fully disagree
4	3	2	1	0	

- 21. A lasting increase in the frequency of my stuttering would not diminish my general quality of life.**

fully agree					fully disagree
0	1	2	3	4	

- 22. I very rarely avoid situations for fear of stuttering.**

fully agree					fully disagree
0	1	2	3	4	

- 23. I rarely search for other words, reorganise my sentences or break off in mid-sentence to avoid stuttering.**

fully agree					fully disagree
0	1	2	3	4	

- 24. I am not happy with how I cope with my stuttering.**

fully agree					fully disagree
4	3	2	1	0	

- 25. Stuttering is an experience in loss of control: You cannot control when the stutter arises, how it progresses or how long it lasts. I can experience the stuttering induced loss of control without negative feelings.**

fully agree					fully disagree
0	1	2	3	4	

26. Overall, the way I see myself as a person who stutters is as self-accepting and outwardly confident as I would like it to be.

fully agree					fully disagree
0	1	2	3	4	

Desensitization Questionnaire Stuttering: Evaluation sheet

Name: _____ Age: _____

Date: _____ Evaluator : _____

Enter the scores for the various items in the subscale table.

Item	Subscale 1 Emotional experience (15)	Subscale 2 Behaviour (5)	Subscale 3 Higher-order areas of life (6)	Total score (26)
1 Emotions				
2 Emotions				
3 Emotions				
4 Behaviour				
5 Emotions				
6 Emotions				
7 Emotions				
8 Higher-order areas				
9 Emotions				
10 Behaviour				
11 Higher-order areas				
12 Emotions				
13 Emotions				
14 Emotions				
15 Emotions				
16 Emotions				
17 Behaviour				
18 Higher-order areas				
19 Emotions				
20 Emotions				
21 Higher-order areas				
22 Behaviour				
23 Behaviour				
24 Higher-order areas				
25 Emotions				
26 Higher-order areas				
Sum of raw values				
Percentage				
Degree of desensitization	Score 1 (Emotions)	Score 2 (Behaviour)	Score 3 (Higher- order areas)	Total score

Raw values, percentile and degree of desensitization

Raw values, percentile and degree of desensitization: "Total DST score"

Total overall DST score	Percentile	Degree of desensitization
0 - 10	1 - 4	very good
11 - 15	5 - 11	very good to good
16 - 24	12 - 23	good
25 - 36	24 - 40	good to moderate
37 - 50	41 - 60	moderate
51 - 62	61 - 77	moderate to poor
63 - 70	78 - 88	poor
71 - 76	89 - 95	poor to very poor
77 - 104	96 - 100	very poor

Raw values, percentile and degree of desensitization

DST subscale "Emotional experience"

Total score for "Emotional experience"	Percentile	Degree of desensitization
0 - 9	1 - 11	very good
10 - 21	12 - 40	good
22 - 36	41 - 77	moderate
37 - 45	78 - 95	poor
46 - 60	96 - 100	very poor

Raw values, percentile and degree of desensitization

DST subscale "Behaviour"

Total score for "Behaviour"	Percentile	Degree of desensitization
0 - 2	1 - 11	very good
3 - 6	12 - 40	good
7 - 11	41 - 77	moderate
12 - 14	78 - 95	poor
15 - 20	96 - 100	very poor

Raw values, percentile and degree of desensitization

DST subscale "Influence of stuttering on higher-order areas of life"

Total score for "Higher-order areas of life"	Percentile	Degree of desensitization
0 - 2	1 - 11	very good
3 - 8	12 - 40	good
9 - 15	41 - 77	moderate
16 - 21	78 - 95	poor
22 - 24	96 - 100	very poor

Results of the Desensitization Questionnaire Stuttering (DST)

(H.Zückner 2016)

Name: _____ **Age:** _____

Date: _____ **Therapist / Institution:** _____

This questionnaire measures the extent to which a person who stutters is desensitized to his stutter and to reactions from listeners. The degree of desensitization, high or low, is measured in three areas covered by items in the questionnaire:

1. How strong is the emotional stress due to stuttering (e.g. when stuttering in front of people whom one does not like)?
2. Which behaviour patterns indicate the degree of desensitization (e.g. reorganizing sentences or thinking of alternative words in order to avoid stuttering)?
3. What effect does stuttering have on higher-order areas of life (e.g. self-worth, quality of life, etc.)?

An overall desensitization value is calculated from all three areas. The total numerical value obtained in this way permits classification in one of nine degree categories. For the three subscales, the result is classified in five degree categories.

Your results are marked with a circle.

Total result for degree of desensitization

very good	good to very good	good	good to moderate	moderate	moderate to poor	poor	poor to very poor	very poor
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Total score: _____ points on a scale of 0 to 104
(0 = very good desensitization | 104 = very poor desensitization).

The subscales for the degree of desensitization yielded the following classification:

Assessment of the emotional stress due to stuttering

very good desensitization	good desensitization	moderate desensitization	poor desensitization	very poor desensitization
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Assessment of behaviour (in connection with stuttering)

very good desensitization	good desensitization	moderate desensitization	poor desensitization	very poor desensitization
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Assessment of effect of stuttering on higher-order areas of life

very good desensitization	good desensitization	moderate desensitization	poor desensitization	very poor desensitization
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References

Zückner H. (2017). Desensibilisierungsfragebogen Stottern (DST), Forum Logopädie, 31 (2), 6-11

<http://www.desensibilisierungsfragebogen-stottern.de/>

[http://www. desensitization-questionnaire-stuttering.net](http://www.desensitization-questionnaire-stuttering.net)