

# University of Washington

## Self-Efficacy Scale (UW-SES) ©

### Generic Version

## Users Guide

Version 1.0 – English

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# UNIVERSITY OF WASHINGTON SELF-EFFICACY SCALE (UWSES) ©

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<https://uwcorr.washington.edu/measures/uw-ses-userguide.pdf>. Accessed on [insert date].

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## Questions about the UW-SES Instruments

If you have questions about the UW-SES instruments or their use in clinical care or research, please contact the University of Washington Center on Outcomes Research in Rehabilitation (UWCORR).

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## Overview of the UW-SES

The University of Washington Self-Efficacy Scale(UW-SES) is an Item Response Theory (IRT) based instrument intended for measuring disability management self-efficacy in adults with chronic health conditions. The UW-SES is a publicly available, psychometrically sound item bank that can be administered by computerized adaptive testing or short forms (on paper or computer).

The self-efficacy scales shown here were developed in a sample of persons with multiple sclerosis (MS) and spinal cord injury (SCI). The UW-SES has also been validated in persons with muscular dystrophy and post-polio syndrome. Please see the published references below for more information on the development sample and psychometric properties of the scale.

### Published References:

Amtmann D, Bamer AM, Cook KF, Askew RL, Noonan VK, Brockway JA. University of Washington Self-Efficacy Scale: A New Self-Efficacy Scale for People with Disabilities. Arch Phys Med Rehabil, 2012;93(10):1757-65.

Chung H, Kim J, Park R, Bamer AM, Bocell FD, Amtmann D. Testing the measurement invariance of the University of Washington Self-Efficacy Scale short form across four diagnostic subgroups. Qual Life Res, 2016;25(10):2559-2564.

## Instructions for Using the UW Self-Efficacy Scale

Below you will find both the full 19 item scale and the six item short form for use in persons with chronic health conditions. The investigator versions shown below are the generic versions, meant to be applicable to any health condition. However, the original versions developed in persons with MS and SCI specifically referenced MS or SCI in the scales. Thus, we provide patient versions on our website that are specific to MS or SCI in addition to the generic version (e.g. <https://uwcorr.washington.edu/measures/uw-ses-sf6-ms.pdf>). The items are generally identical, but instead of saying “*your health condition or disability*” the item references “*your MS*” or “*your SCI.*” The scoring instructions and tables apply equally to all forms, whether it is the SCI, MS, or generic version.

The item bank and short form scales are intended for use in a self-report survey. For lowest respondent burden and most reliable score, use computerized adaptive testing (CAT) if it is available. To learn more about CAT and why it is recommended, visit the Health Measures CAT website

(<http://www.healthmeasures.net/resource-center/measurement-science/computer-adaptive-tests-cats>). If CAT is not available use the 6-item short form.

Participant or patient versions are available on the website as a standalone PDFs (e.g. <https://uwcorr.washington.edu/measures/uw-ses-sf6-generic.pdf>). Investigator versions with individual item scoring indicated are shown below. It is best practice **not to administer the version that shows scoring to the**

**participants.** The full bank, that is all 19 items, is provided below for informational purposes, as it is not necessary to administer all items in the item bank. **The full item bank is intended for CAT** which uses an algorithm to select items based on responses to previous items. However, if you are interested in administering the full bank a scoring table is provided below.

## Scoring

The UW-SES short form is scored by summing the responses to the first 6 individual items and transforming the summary score to an IRT-based T-score using the conversion table provided. **The summary score should not be used for any purposes.** All reliability and validation information relates to the IRT based T-scores. Raw scores/codes for each item range from 1 to 5 as indicated in the investigator/clinician versions below. Only complete responses with no missing data can be scored using the provided conversion scoring table. However, information on scoring with missing data is also provided under “Scoring with Missing Data” below. Detailed instructions for scoring the short form are outlined below.

6-Item Short Form: These instructions are only valid if there are complete responses with no missing data on all 6 items. Step 1: The 6 items on the short form are summed using the values provided for each response available in the clinician/researcher version of the form. This will give a summary score that ranges from 6 to 30. This is **not** a score that can be used for clinical or analytical purposes. Step 2: Using the Summary Score to T-score Conversion Table, use the summary score to look up the IRT-based T-score in the column labeled “T-score” in the conversion table (page 7 below). For example, a person with a summary score of 8 would have a T-score of 26.5. This T-score is your final score you will use for all analyses.

Full Item Bank (19 Items): Only items 1-17 are summed as a first step. This will give you a total score that ranges from the value of 17 to 85. Items 18 and 19 are not included in the scoring of the full scale. However, these items were included on the form as they cover important content and may be very informative to the researchers or clinicians. After summing the 17 items, you will then transform the scores to a t-scale metric using the concordance table provided below. Note that all 6 items on the short form are also included in the full scale so both a 17 item score and a 6 item score can be generated from the full scale.

Scoring with Missing Data: The 6-item short form scoring table should only be used when all responses are completed for all of the 6 items. For missing responses on any of the 6 items use IRT software if possible. If IRT software is not available, the short form score can be approximated if a person skips up to two questions. If more than 2 of the 6 items are missing, a score cannot be generated without IRT software. Step 1: For respondents with missing data, first check how many items were answered and confirm that at least 4 items of the 6 items were answered before proceeding. Step 2: Next, sum the response scores from the items that were answered. Multiply this sum by 6 (i.e. the number of items used in scoring the short form). Step 3: Next divide by the number of items that were answered (this will be either 3 or 4). If the result is a fraction, round up to the nearest whole number. This will give a pro-rated summary score that ranges from 6 to 30. This is

**not** a score that can be used for clinical or analytical purposes. Step 4: Finally, using the Summary Score to T-score Conversion Table below, translate the pro-rated summary score into a T-score for the respondent just as you would for any person who did not have missing responses.

Again, the formula is:

$$\frac{\text{(Raw sum x 6)}}{\text{(Number of items actually answered)}} = \text{Pro-rated summary score (round up to nearest whole number)}$$

### Interpreting UW-SES Scores

The UW-SES T-score is a standardized score with a mean of 50 and a standard deviation (SD) of 10. A higher T-score represents a higher level of self-efficacy. T-scores are comparable across all UW-SES instruments. This means that a score obtained by a respondent using the 6-item short form may be compared directly to a score obtained by a respondent using the full bank or a CAT administration of the scale with the understanding that the score based on CAT is more reliable (i.e., accurate) than the score based on the short form. T-scores of 50 represent the mean score of the development sample. Based on a normal distribution of UW-SES T-scores, 50% of respondents with a chronic condition will have a T-score of 50 or higher (see Figure 1 below). A respondent that receives a T-score of 60 has reported a level of self-efficacy approximately 1 standard deviation above the mean of respondents in the development sample.

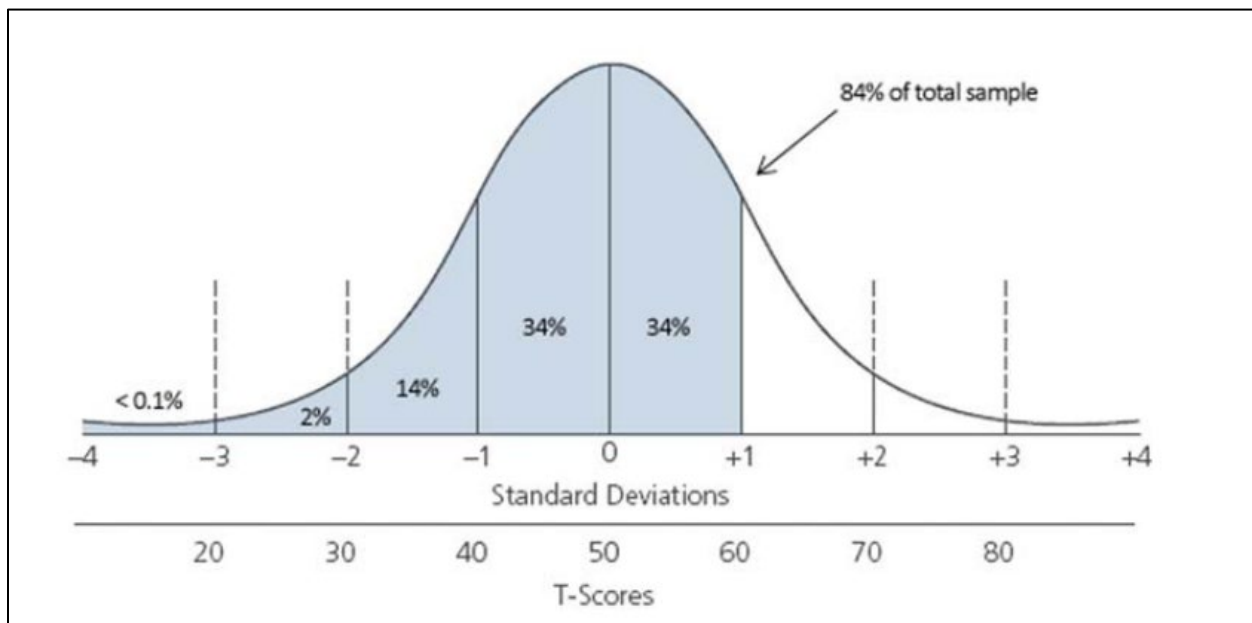


Figure 1 – A UW-SES T-score of 60 indicates that approximately 84 percent of persons in the Development sample reported lower self-efficacy, as reflected by the shaded area.

## Summary Score to T-score Conversion Table

6 Item Short Form V.1.0 – UW-SES Summary Score to T-score Conversion

Summary Score	T-score
6	20.0
7	23.8
8	26.5
9	28.9
10	31.0
11	32.9
12	34.7
13	36.4
14	38.0
15	39.6
16	41.1
17	42.6
18	44.1
19	45.6
20	47.1
21	48.6
22	50.2
23	51.8
24	53.4
25	55.1
26	56.9
27	59.0
28	61.3
29	64.1
30	68.9

19 Item Full Bank V.1.0 – UW-SES Summary Score to T-score Conversion

Summary Score	T-score	Summary Score	T-score
17	15.40	53	44.40
18	18.10	54	45.00
19	20.00	55	45.50
20	21.50	56	46.10
21	22.90	57	46.60
22	24.00	58	47.20
23	25.10	59	47.80
24	26.00	60	48.30
25	26.90	61	48.90
26	27.80	62	49.50
27	28.60	63	50.10
28	29.30	64	50.60
29	30.10	65	51.20
30	30.80	66	51.80
31	31.50	67	52.50
32	32.20	68	53.10
33	32.80	69	53.70
34	33.50	70	54.40
35	34.10	71	55.00
36	34.70	72	55.70
37	35.40	73	56.40
38	36.00	74	57.10
39	36.60	75	57.90
40	37.20	76	58.70
41	37.70	77	59.50
42	38.30	78	60.40
43	38.90	79	61.30
44	39.50	80	62.40
45	40.00	81	63.60
46	40.60	82	65.00
47	41.20	83	66.60
48	41.70	84	68.90
49	42.30	85	72.60
50	42.80		
51	43.40		
52	43.90		



# UW Self-Efficacy Scale© Investigator or Clinician Forms

## Generic Versions 1.0 – English

UW Self-Efficacy Scale 6-Item Short Form V. 1.0©  
(Generic Investigator/Clinician Version)

<b>How confident are you that:</b>	Not at all	A little	Quite a bit	A lot	Completely
1. You can keep the physical discomfort related to your health condition or disability from interfering with the things you want to do?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. You can keep your health condition or disability from interfering with your ability to deal with unexpected events?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. You can keep your health condition or disability from interfering with your ability to interact socially?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. You can keep your health condition or disability from being the center of your life?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. You can bounce back from frustration, discouragement or disappointment that your health condition or disability may cause you?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. You can figure out effective solutions to issues that come up related to your health condition or disability?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

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UW Self-Efficacy Scale Item Bank V. 1.0©  
(Generic Investigator/Clinician Version)

<b>How confident are you that:</b>	<b>Not at all</b>	<b>A little</b>	<b>Quite a bit</b>	<b>A lot</b>	<b>Completely</b>
1. You can keep the fatigue caused by your health condition or disability from interfering with the things you want to do?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
2. You can keep the physical discomfort related to your health condition or disability from interfering with the things you want to do?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
3. You can keep the pain related to your health condition or disability from interfering with the things you want to do?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
4. You can keep the emotional distress caused by your health condition or disability from interfering with the things you want to do?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
5. You can keep any other symptoms or health problems you have from interfering with the things you want to do?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
6. You can do things other than just taking medication to reduce how much your health condition or disability affects your everyday life?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
7. You can keep your health condition or disability from interfering with managing your affairs?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
8. You can keep your health condition or disability from interfering with family relationships?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
9. You can keep your health condition or disability from interfering with close friendships?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
10. You can keep your health condition or disability from interfering with your ability to deal with unexpected events?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
11. You can keep your health condition or disability from interfering with your ability to interact socially?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
12. You can keep your health condition or disability from being the center of your life?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>
13. You can keep your health condition or disability from interfering with having a fulfilling life?	<input type="checkbox"/> <b>1</b>	<input type="checkbox"/> <b>2</b>	<input type="checkbox"/> <b>3</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>

How confident are you that:	Not at all	A little	Quite a bit	A lot	Completely
14. You can, using all the resources available to you, minimize the occurrence of complications related to your health condition or disability (such as bladder accidents or falls)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. You can bounce back from frustration, discouragement or disappointment that your health condition or disability may cause you?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16. You can, using all the resources available to you, successfully manage your medication needs?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17. You can figure out effective solutions to issues that come up related to your health condition or disability?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

How confident are you that:	N/A (I don't have a partner)	Not at all	A little	Quite a bit	A lot	Completely
18. You can keep your health condition or disability from interfering with having an emotionally intimate relationship with a spouse or partner?	<input type="checkbox"/>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
	N/A (don't have a partner or prefer not to answer)	Not at all	A little	Quite a bit	A lot	Completely
19. You can keep your health condition or disability from interfering with having a satisfying sexual relationship?	<input type="checkbox"/>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5