

Note: The ASL signer in the video introduction above pointed to a location in the lower region of the signing space to represent the concept of the product, website, or software that the participant had just used. In the transcriptions below, whenever the signer refers to the “product,” he points to this region in the signing space again. This avoids the redundancy of the signer repeating the phrase “software, website, or product” for every question item below. This pointing sign is glossed using THIS_{down} in the transcriptions below.

Question 1: *English:* “I think that I would like to use this product frequently.” *ASL Transcript:* I LOOK THIS_{down}, head-nod-with-mouth-morpheme-cheek-puff{ DON’T-MIND USE OFTEN }

Question 2: *English:* “I found the product unnecessarily complex.” *ASL Transcript:* I LOOK THIS_{down}, negative-grimace{ WAVE-WOW COMPLEX }

Question 3: *English:* “I thought the product was easy to use.” *ASL Transcript:* I LOOK THIS_{down}, head-nod-with-mouth-morpheme-cheek-puff{ EASY USE UNDERSTAND }

Question 4: *English:* “I think that I would need the support of a technical person to be able to use this product.” *ASL Transcript:* I DREAM-BUBBLE-IMAGINE THIS_{down} USE, I NEED TECHNOLOGY HELP_{me} (emphatic-nod)

Question 5: *English:* “I found the various functions in the product were well integrated.” *ASL Transcript:* I LOOK THIS_{down}, MANY ACTIVITY (list buoy using the left hand with four fingers extended to indicate list items, using right index finger to point to each item one-by-one, with rhythmic nodding when pointing to each item) I CAN USE TOGETHER FINE, WAVE-WOW.

Question 6: *English:* “I thought there was too much inconsistency in this product.” *ASL Transcript:* I LOOK THIS_{down}, MANY ACTIVITY (list buoy using the left hand with four fingers extended to indicate list items, using right index finger to point to each item one-by-one, with rhythmic nodding when pointing to each item) disgust-face-without-headshake{ DIFFERENT } disgust-face-with-negative-headshake{ NOT SAME }

Question 7: *English:* “I imagine that most people would learn to use this product very quickly.” *ASL Transcript:* I DREAM-BUBBLE-IMAGINE LOOK THIS_{down}, LEARN USE FAST (shrug)

Question 8: *English:* “I found the product very awkward to use.” *ASL Transcript:* I LOOK THIS_{down}, I USE disgust-face-without-head-shake-with-tense-grimace{ AWKWARD }

Question 9: *English:* “I felt very confident using the product.” *ASL Transcript:* I LOOK THIS_{down}, I USE happy-positive-face{ CONFIDENT }

Question 10: *English:* “I needed to learn a lot of things before I could get going with this product.” *ASL Transcript:* I LOOK THIS_{down}, WAVE-WOW I MUST LEARN MANY MANY, I FINALLY USE

9.2 ASL Translation of Adjective Scale

The adjective scale was designed in [2]. The translation team decided that the terms “user-friendliness” and “product” needed some expansion in ASL to convey the meaning, e.g. to suggest that the person might have seen a website, a computer program, etc.

English: “Overall, I would rate the user-friendliness of this product as: worst imaginable, awful, poor, OK, good, excellent, best imaginable.” *ASL Transcript:* yes-no-question{ REMEMBER

BEFORE YOU PLAY THIS THING } VARIOUS, MAYBE PROGRAM, MAYBE WEBSITE, MAYBE ELECTRIC. PLAY, TEST, (nodding). NOW, I CURIOUS, WHAT YOUR OPINION THIS_{down}. rhetorical-question{ HOW EXPLAIN THIS } yes-no-question{ SEE BOX (points to first checkbox on paper sheet) } YOU OBSERVE, I EXPLAIN. FIRST, RIGHT SIDE BOX, NO GOOD disgust-face{ WORST } NEXT, disgust-face{ AWFUL } NEXT, disgust-face{ POOR } NEXT, grimace{ OK } NEXT, shrug{ GOOD } NEXT, positive-face{ EXCELLENT } NEXT, positive-face{ CHAMP-BEST } NOW, OBSERVE THIS_{down}, YOU PICK ONE, CIRCLE.

10. APPENDIX B: USER STUDY DATA

This appendix contains the raw data collected in study #1 and study #2, described in section 4.4. The Tables 1 and 2 contain the following columns: “Partic. ID #” (a code number used to refer to each participant), “Q1” to “Q10” (the raw scores from participant responses to individual Likert-type items, with 1 indicating Strongly Disagree and 5 indicating Strongly Agree), the ASL-SUS score based on these ten responses, and the “Adj. Scale” indicating the numerical values corresponding to the adjective choice of the participant on this item (scoring details appear in section 4.4.1). Because half of the individual items on SUS have negative polarity, overall scores are calculated according to this formula, from [5]:

$$SUS = 2.5 \cdot ((Q1-1) + (5-Q2) + (Q3-1) + (5-Q4) + (Q5-1) + (5-Q6) + (Q7-1) + (5-Q8) + (Q9-1) + (5-Q10))$$

Table 1: Raw data from user study #1 with ASL-SUS.

Partic. ID #	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	ASL-SUS	Adj. Scale
1	3	2	3	2	5	4	4	1	4	2	70	5
2	3	1	5	4	3	4	5	2	5	3	67.5	6
3	4	4	2	3	4	4	2	4	2	4	37.5	4
4	3	2	3	1	3	3	5	4	3	3	60	5
5	3	4	4	5	4	5	5	3	4	4	47.5	5
6	3	4	2	4	4	4	4	2	3	2	50	5
7	5	4	4	4	4	4	3	3	4	4	52.5	5
8	3	2	3	4	4	2	3	2	5	5	57.5	5
9	4	3	2	3	4	2	3	3	4	3	57.5	5
10	3	2	4	1	3	5	4	2	4	3	62.5	5
11	5	2	4	2	4	3	2	2	4	3	67.5	6
12	3	2	3	4	4	4	4	3	3	5	47.5	7
13	2	4	2	3	4	4	2	3	2	4	35	4
14	1	4	2	2	2	4	1	2	2	4	30	1
15	2	4	2	3	3	4	2	4	1	5	25	2
16	4	2	4	2	2	4	4	2	4	4	60	5
17	3	4	2	3	3	4	2	3	4	3	42.5	5
18	4	3	4	3	2	4	4	3	3	3	52.5	5
19	5	3	4	4	5	4	3	3	5	4	60	5
20	1	4	4	5	5	5	5	5	5	5	40	6
21	1	3	3	3	3	3	2	5	3	3	37.5	4
22	2	4	3	4	2	2	1	3	3	5	32.5	4
23	3	2	4	3	5	5	4	4	4	4	55	5
24	4	3	2	4	4	4	3	5	3	5	37.5	4
25	5	3	3	5	4	2	2	1	3	3	57.5	5
26	4	2	3	2	4	1	5	1	4	4	75	6
27	4	4	3	4	4	3	4	4	3	4	47.5	5
28	5	2	4	2	4	1	3	2	4	2	77.5	6
29	3	2	4	2	4	2	3	3	3	2	65	5
30	5	4	5	4	5	5	5	4	5	4	60	6

Table 2: Raw data from user study #2 with English SUS.

Partic. ID #	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	English SUS	Adj. Scale
31	4	5	5	1	5	2	3	2	4	1	75	6
32	3	3	4	2	5	3	4	2	4	2	70	5
33	4	3	4	4	3	4	3	3	3	3	50	4
34	2	1	3	1	4	1	5	3	4	5	67.5	4
35	2	3	3	5	4	3	4	5	2	4	37.5	4
36	4	3	4	2	4	3	3	3	4	2	65	6
37	2	5	3	2	3	4	1	5	4	1	40	4
38	1	5	4	1	1	5	3	4	4	4	35	3
39	3	4	2	5	3	3	2	5	3	3	32.5	5
40	2	4	2	4	3	4	3	3	3	5	32.5	4