University of
Salford
MANCHESTER

EDAQ

Evaluation of Daily Activity Questionnaire:
User Manual v2

Supplement 2:

Rasch Transformation Tables for

Cross Condition Analyses

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The Evaluation of Daily Activity Questionnaire (EDAQ) User Manual: Version 2: Supplement 1

[1] Centre for Health Sciences Research, University of Salford, UK; [2] Swiss Paraplegic Research, Nottwil, Switzerland; [3] Psychometrics Laboratory, Academic Department of Rehabilitation Medicine, University of Leeds, UK [4] School of Nursing, Midwifery & Social Work, University of Manchester, UK.

The English version of the EDAQ is adapted from the Swedish EDAQ developed by Ulla Nordenskiöld PhD, Sahlgrenska Academy, University of Gothenburg, Sweden.

Obtaining the EDAQ and the EDAQ Manual:

The two forms of the Evaluation of Daily Activity Questionnaire (EDAQ: i.e. including Parts 1 and 2; **or** Parts 1,2 and 3) and the EDAQ Manual v2 (and any updated versions and supplements) are available for download at:

http://usir.salford.ac.uk/view/authors/10108.html#group

Look under "Monographs" for latest versions of the EDAQ Manual, Manual Supplements and the English, Dutch and German versions of the EDAQ.

 Publications related to the EDAQ are located under "Articles."

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1. Introduction

As EDAQ data is ordinal (and Part 2 total domain scores are calculated by summing this ordinal data), data should be summarised using medians and inter-quartile ranges (IQR) but **not** means and standard deviations. **Non-parametric** tests must be used to identify differences in scores, for example: between Sections A and B (without and with ergonomic solutions and help); before to after treatment; or between groups.

In research, if required, Part 2 total domain scores can be transformed into interval data using the **Rasch Transformation Tables** for these eight conditions (EDAQ MANUAL v2 Supplement 1: Rasch Transformation Tables for Individual Condition Analyses). These tables are used if you are analysing data from a condition and do not intend to compare scores with those from another condition. Rasch transformation enables use of means (SD) and parametric tests, when applicable.

2. Which Rasch Transformation tables do I use?

If you are transforming data for a single condition, e.g. AS or RA only, and you do **not** intend to compare scores from that condition with those from another condition, you should use:

- EDAQ MANUAL v2 Supplement 1: Rasch Transformation Tables for Individual Condition Analyses

During Rasch analysis we identified that there is Differential Item Functioning between conditions. Thus, if you wish to compare data **across** conditions, you should use:

- EDAQ MANUAL v2: Supplement 2: Rasch Transformation Tables for Cross-Conditional Analyses.

3. Rasch analysis: Cross-Conditional DIF in RA and MSCs.

The Rasch analysis for RA and MSCs is explained in Hammond et al, 2015b and Hammond et al, 2016. During the Rasch analysis in the EDAQ- MSC study, data was pooled across all MSCs and RA and used to assess stability of the EDAQ across conditions. In both the Self-Care and Mobility components, a large amount of Differential Item Functioning (DIF)- by-condition was present. In the Self-Care component, only Bathroom/Personal Care and Laundry/Clothes Care were free from DIF and in the Mobility component, only Moving Outdoors/Shopping. Post-hoc Tukey tests were carried out to determine which domains were being treated differently across conditions. Pairwise tests were done for each between-condition comparison. Following the ascertainment of DIF, domain-item splitting was carried out to account for the cross-conditional DIF. Domain-item splits were informed by the post-hoc Tukey tests, and the analysis calibration remains linked by the common domain-items. DIF-splitting was done on an iterative basis, with the domain displaying the largest DIF being resolved first. This analysis extension revealed that it is possible to engineer a calibrated common metric for each of the Self-Care and Mobility components, where all cross-conditional DIF has been accounted for. Figures 1 and 2 show the breakdown of where DIF splitting was necessary in order to obtain an unbiased calibration.

Rasch transformation tables for the two components, not each domain, are available. Rasch transformation of an individual's components' scores (Self-Care or Mobility) are only valid when all their total domain scores within that component are complete.

For queries about the Rasch tables: please contact Mike Horton m.c.horton@leeds.ac.uk

Figure 1. Calibration linkage structure of the EDAQ Self-Care component following cross-conditional DIF splitting

Domain Number	Domain Name	Split	AS	CP	CULMD	OA	SLE	SS	PSS	RA
1	Eating & drinking	AS1	▓							
		CP1		▓						
		I01			▓	▓	▓	▓	▓	▓
2	Bathroom & Personal Care	ST02	▓	▓	▓	▓	▓	▓	▓	▓
3	Dressing	AS3	▓							
		SLE3					▓			
		I003		▓	▓	▓		▓	▓	▓
5	Cooking	SSc5						▓		
		CPSL5		▓						
		I005	▓		▓	▓			▓	▓
7	Cleaning the House	SS7						▓		
		CPSL7		▓						
		I007	▓		▓	▓			▓	▓
8	Laundry & Clothes Care	SLE8					▓			
		I008	▓	▓	▓	▓		▓	▓	▓
10	Communication	CH10			▓					
		I010	▓	▓		▓	▓	▓	▓	▓

Key: ▓ =calibration

Figure 2. Calibration linkage structure of the EDAQ Mobility component following cross-conditional DIF splitting

Domain Number	Domain Name	Split	AS	CP	CULMD	OA	SLE	SS	PSS	RA
4	Bathing & Showering	CHRA4			▓					▓
		i004	▓	▓		▓	▓	▓	▓	
6	Moving Indoors	CH6			▓					
		AS6	▓							
		i06		▓		▓	▓	▓	▓	▓
9	Transfers	i09			▓	▓	▓		▓	▓
		CP9		▓						
		AS9	▓							
		SS9						▓		
11	Moving Outdoors	ST11	▓	▓	▓	▓	▓	▓	▓	▓
12	Gardening/House Maintenance	CH12			▓					
		i012	▓	▓		▓	▓	▓	▓	▓

Key: ▓ =calibration

4. How do I use the Rasch Transformation Tables?

Key:

RAW = total component score obtained from summing the total scores for domains included in that component

Rasch T = Rasch transformed score

Example using the Self-Care Table:

If OA raw score = 8, the Rasch transformed score = 56.00

If AS raw score = 27, the Rasch transformed score = 71.59

Example using the Mobility component:

If CULD raw score = 25, the Rasch transformed score = 56.51

Notes:

- Please check you are using the correct table for the component you are investigating.
- Check you are using the correct column in the table for the condition you are Rasch transforming.

If you need information on Scoring and Coding the EDAQ Part 2, please refer to the EDAQ User Manual v2.

Rasch Transforming data in SPSS

1. Use the correct Rasch Transformation Table/ column for the component/ condition you are investigating.
2. Use the Recode facility in SPSS
3. For example: in Ankylosing Spondylitis (AS) for **Self-Care:**
- Recode, for example, TSSelfCare1 (= the RAW score) into **R**TSelfCare1 (= Rasch Transformed score)
- use R as a prefix to the variable name to denote the Total score for "Total SelfCare Test 1" is now Rasch transformed:

Example from Appendix 1: Self-Care

Self-Care	Converted Raw Score Equivalents					
Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
0	0	0	0	0	0	0
1	17.50	18.96	18.97	20.06	15.58	19.46
2	28.32	30.97	30.94	32.27	25.15	31.42
3	34.98	38.61	38.48	39.69	31.06	38.75
4	39.75	44.17	44.00	44.92	35.23	43.93
5	43.45	48.54	48.28	48.93	38.42	47.87
6	46.46	52.10	51.81	52.14	40.98	51.09
7	49.02	55.13	54.81	54.79	43.14	53.75
8	51.23	57.72	57.39	57.05	44.97	56.01

AS Raw score = 6; Rasch transformed score = 46.46

CP raw score = 6; Rasch transformed score = 52.10

Check you use the correct column for each condition you are Rasch transforming.

4. Each domain (sub-scale) for each condition being investigated will need to be recoded using the correct Rasch Transformation table for that condition. Check you are using the correct domain (sub-scale) re-coding values within that table.

5. This Rasch transformation process is only required if it is necessary to use parametric tests. To avoid this time consuming process, non-parametric analyses should be used with the total scores created from the ordinal data.

APPENDIX 1: SELF-CARE COMPONENT

TRANSFORMATION TABLE

FOR RA, AS, OA, SLE, SS, CULD, CP, PSS

Self-Care	Converted Raw Score Equivalents					
Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
0	0	0	0	0	0	0
1	17.50	18.96	18.97	20.06	15.58	19.46
2	28.32	30.97	30.94	32.27	25.15	31.42
3	34.98	38.61	38.48	39.69	31.06	38.75
4	39.75	44.17	44.00	44.92	35.23	43.93
5	43.45	48.54	48.28	48.93	38.42	47.87
6	46.46	52.10	51.81	52.14	40.98	51.09
7	49.02	55.13	54.81	54.79	43.14	53.75
8	51.23	57.72	57.39	57.05	44.97	56.01
9	53.18	60.00	59.66	59.04	46.57	58.01
10	54.94	62.03	61.68	60.79	47.99	59.78
11	56.51	63.85	63.50	62.33	49.25	61.37
12	57.95	65.48	65.15	63.76	50.42	62.81
13	59.28	66.99	66.67	65.07	51.47	64.15
14	60.50	68.36	68.07	66.26	52.46	65.36
15	61.65	69.64	69.38	67.36	53.38	66.52
16	62.71	70.84	70.59	68.40	54.22	67.56
17	63.73	71.95	71.74	69.38	55.03	68.58
18	64.69	73.01	72.83	70.27	55.78	69.53
19	65.59	74.00	73.84	71.13	56.49	70.43
20	66.47	74.94	74.82	71.96	57.18	71.30
21	67.30	75.86	75.75	72.73	57.84	72.11
22	68.07	76.68	76.64	73.51	58.46	72.89
23	68.84	77.51	77.51	74.22	59.06	73.65
24	69.56	78.31	78.32	74.90	59.63	74.37
25	70.25	79.05	79.11	75.56	60.20	75.06
26	70.92	79.76	79.86	76.21	60.73	75.76
27	71.59	80.48	80.62	76.83	61.26	76.43
28	72.23	81.16	81.33	77.43	61.76	77.07

Self-Care Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
29	72.84	81.82	82.02	78.02	62.24	77.68
30	73.42	82.45	82.69	78.59	62.72	78.28
31	74.01	83.04	83.37	79.15	63.18	78.86
32	74.57	83.64	83.98	79.69	63.64	79.44
33	75.10	84.24	84.63	80.19	64.10	80.02
34	75.64	84.81	85.22	80.73	64.51	80.54
35	76.17	85.35	85.81	81.23	64.94	81.09
36	76.67	85.90	86.40	81.74	65.36	81.61
37	77.15	86.41	86.95	82.21	65.77	82.13
38	77.66	86.92	87.51	82.69	66.16	82.65
39	78.11	87.44	88.05	83.16	66.57	83.14
40	78.59	87.92	88.58	83.61	66.96	83.64
41	79.05	88.41	89.11	84.08	67.33	84.10
42	79.50	88.89	89.62	84.53	67.69	84.59
43	79.92	89.35	90.12	84.94	68.08	85.06
44	80.35	89.80	90.60	85.39	68.43	85.52
45	80.78	90.26	91.07	85.81	68.79	85.95
46	81.20	90.69	91.55	86.25	69.14	86.42
47	81.60	91.11	92.03	86.67	69.48	86.85
48	82.00	91.54	92.47	87.05	69.82	87.29
49	82.40	91.97	92.92	87.47	70.17	87.72
50	82.80	92.40	93.37	87.89	70.51	88.15
51	83.18	92.80	93.79	88.27	70.83	88.56
52	83.55	93.19	94.21	88.66	71.18	88.96
53	83.92	93.60	94.63	89.04	71.50	89.37
54	84.29	93.97	95.05	89.43	71.82	89.78
55	84.67	94.37	95.45	89.82	72.11	90.18
56	85.01	94.74	95.87	90.20	72.44	90.59
57	85.36	95.11	96.26	90.56	72.76	90.96
58	85.71	95.48	96.65	90.95	73.05	91.37

Self-Care Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
59	86.05	95.85	97.01	91.30	73.35	91.75
60	86.40	96.30	97.40	91.66	73.65	92.12
61	86.75	96.59	97.77	92.02	73.95	92.50
62	87.09	96.93	98.14	92.37	74.25	92.88
63	87.41	97.30	98.50	92.73	74.54	93.25
64	87.76	97.64	98.86	93.09	74.84	93.60
65	88.08	97.99	99.23	93.44	75.12	93.97
66	88.40	98.33	99.59	93.77	75.41	94.32
67	88.72	98.67	99.93	94.13	75.69	94.70
68	89.04	99.014	100.26	94.45	75.99	95.05
69	89.36	99.34	100.63	94.78	76.26	95.40
70	89.68	99.67	100.97	95.11	76.54	95.74
71	90.00	100.01	101.30	95.46	76.81	96.09
72	90.32	100.33	101.64	95.79	77.09	96.44
73	90.61	100.64	101.95	96.12	77.36	96.78
74	90.93	100.98	102.28	96.41	77.64	97.13
75	91.25	101.30	102.59	96.74	77.89	97.48
76	91.54	101.61	102.93	97.07	78.16	97.80
77	91.86	101.92	103.24	97.40	78.44	98.15
78	92.15	102.24	103.57	97.69	78.69	98.46
79	92.47	102.55	103.88	98.02	78.96	98.81
80	92.77	102.86	104.19	98.31	79.22	99.13
81	93.06	103.18	104.50	98.64	79.49	99.45
82	93.35	103.46	104.80	98.94	79.74	99.80
83	93.67	103.78	105.11	99.24	80.00	100.11
84	93.97	104.09	105.42	99.53	80.25	100.43
85	94.26	104.38	105.73	99.86	80.52	100.75
86	94.55	104.69	106.01	100.16	80.77	101.07
87	94.84	104.97	106.32	100.45	81.03	101.39
88	95.16	105.29	106.63	100.75	81.28	101.71

Self-Care Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
89	95.46	105.57	106.91	101.05	81.53	102.03
90	95.75	105.89	107.21	101.35	81.78	102.34
91	96.04	106.17	107.52	101.64	82.03	102.66
92	96.34	106.46	107.80	101.91	82.29	102.98
93	96.63	106.77	108.11	102.21	82.54	103.27
94	96.92	107.06	108.39	102.50	82.79	103.59
95	97.22	107.34	108.70	102.80	83.02	103.91
96	97.51	107.63	108.98	103.01	83.27	104.23
97	97.80	107.91	109.26	103.36	83.52	104.52
98	98.09	108.23	109.57	103.66	83.78	104.83
99	98.39	108.51	109.85	103.96	84.00	105.15
100	98.68	108.80	110.13	104.23	84.26	105.44
101	98.97	109.08	110.44	104.52	84.51	105.76
102	99.27	109.37	110.72	104.82	84.74	106.05
103	99.56	109.66	111.00	105.09	84.99	106.37
104	99.85	109.94	111.31	105.39	85.24	106.66
105	100.15	110.22	111.59	105.65	85.47	106.98
106	100.44	110.51	111.87	105.95	85.72	107.27
107	100.73	110.79	112.15	106.25	85.95	107.59
108	101.03	111.08	112.45	106.51	86.20	107.88
109	101.32	111.36	112.74	106.81	86.43	108.19
110	101.61	111.65	113.02	107.08	86.68	108.48
111	101.90	111.93	113.30	107.38	86.94	108.77
112	102.20	112.22	113.60	107.68	87.17	109.09
113	102.49	112.50	113.88	107.94	87.42	109.38
114	102.78	112.79	114.16	108.24	87.65	109.70
115	103.08	113.07	114.44	108.54	87.90	109.99
116	103.37	113.36	114.75	108.83	88.13	110.28
117	103.66	113.64	115.03	109.10	88.40	110.60
118	103.96	113.93	115.31	109.40	88.61	110.89

Self-Care Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
119	104.25	114.24	115.59	109.69	88.86	111.21
120	104.54	114.53	115.90	109.99	89.10	111.50
121	104.86	114.81	116.18	110.26	89.34	111.79
122	105.15	115.01	116.46	110.56	89.57	112.10
123	105.45	115.38	116.74	110.85	89.82	112.39
124	105.74	115.67	117.02	111.15	90.07	112.71
125	106.06	115.98	117.30	111.45	90.30	113.00
126	106.35	116.27	117.58	111.74	90.56	113.32
127	106.65	116.55	117.84	112.04	90.79	113.61
128	106.97	116.84	118.12	112.34	91.04	113.93
129	107.26	117.15	118.40	112.64	91.29	114.22
130	107.58	117.44	118.65	112.96	91.52	114.54
131	107.87	117.72	118.93	113.26	91.77	114.83
132	108.19	118.04	119.18	113.56	92.02	115.14
133	108.51	118.32	119.46	113.88	92.27	115.46
134	108.80	118.63	119.71	114.18	92.53	115.76
135	109.12	118.95	119.96	114.48	92.78	116.07
136	109.44	119.23	120.22	114.80	93.03	116.39
137	109.76	119.55	120.47	115.10	93.28	116.71
138	110.08	119.86	120.70	115.43	93.53	117.03
139	110.40	120.17	120.95	115.76	93.79	117.35
140	110.75	120.49	121.17	116.08	94.04	117.66
141	111.07	120.80	121.42	116.41	94.29	117.98
142	111.39	121.12	121.67	116.71	94.54	118.30
143	111.74	121.43	121.90	117.03	94.82	118.62
144	112.08	121.74	122.15	117.39	95.07	118.94
145	112.43	122.06	122.37	117.71	95.34	119.29
146	112.77	122.40	122.63	118.04	95.60	119.60
147	113.12	122.71	122.85	118.37	95.87	119.95
148	113.47	123.05	123.10	118.73	96.15	120.27

Self-Care Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
149	113.81	123.40	123.33	119.08	96.42	120.62
150	114.19	123.71	123.58	119.41	96.70	120.97
151	114.56	124.05	123.83	119.77	96.98	121.28
152	114.91	124.39	124.06	120.12	97.25	121.63
153	115.31	124.77	124.31	120.48	97.54	122.01
154	115.68	125.11	124.59	120.84	97.82	122.36
155	116.05	125.45	124.84	121.22	98.12	122.70
156	116.45	125.82	125.09	121.58	98.41	123.08
157	116.85	126.19	125.37	121.96	98.71	123.43
158	117.28	126.56	125.65	122.32	99.01	123.80
159	117.68	126.93	125.93	122.71	99.31	124.18
160	118.10	127.30	126.24	123.09	99.63	124.56
161	118.53	127.67	126.55	123.51	99.93	124.93
162	118.96	128.07	126.89	123.90	100.25	125.34
163	119.41	128.47	127.22	124.31	100.59	125.71
164	119.86	128.87	127.56	124.73	100.91	126.12
165	120.34	129.27	127.92	125.14	101.25	126.53
166	120.79	129.70	128.29	125.56	101.60	126.96
167	121.30	130.10	128.68	126.01	101.94	127.37
168	121.78	130.53	129.10	126.45	102.31	127.80
169	122.29	130.95	129.52	126.90	102.67	128.23
170	122.82	131.41	129.94	127.37	103.04	128.67
171	123.35	131.84	130.39	127.82	103.43	129.13
172	123.88	132.29	130.89	128.29	103.82	129.60
173	124.44	132.78	131.37	128.80	104.21	130.06
174	125.00	133.24	131.87	129.30	104.62	130.55
175	125.59	133.72	132.41	129.81	105.06	131.04
176	126.17	134.21	132.94	130.31	105.49	131.54
177	126.79	134.70	133.50	130.85	105.93	132.06
178	127.43	135.23	134.09	131.38	106.39	132.58

Self-Care Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
179	128.07	135.75	134.68	131.95	106.87	133.13
180	128.73	136.29	135.27	132.51	107.37	133.68
181	129.40	136.83	135.91	133.11	107.87	134.23
182	130.12	137.40	136.55	133.70	108.40	134.81
183	130.84	137.97	137.20	134.32	108.95	135.42
184	131.58	138.57	137.90	134.98	109.52	136.02
185	132.36	139.17	138.60	135.63	110.12	136.66
186	133.13	139.79	139.30	136.30	110.74	137.33
187	133.95	140.45	140.06	137.00	111.40	137.99
188	134.83	141.11	140.81	137.71	112.07	138.69
189	135.71	141.82	141.60	138.45	112.78	139.41
190	136.65	142.53	142.39	139.23	113.53	140.14
191	137.60	143.27	143.22	140.03	114.31	140.92
192	138.62	144.04	144.09	140.86	115.14	141.73
193	139.68	144.84	144.96	141.72	116.01	142.57
194	140.80	145.70	145.88	142.61	116.95	143.47
195	141.97	146.58	146.87	143.56	117.93	144.39
196	143.23	147.52	147.88	144.57	118.98	145.35
197	144.53	148.49	148.94	145.64	120.11	146.39
198	145.94	149.55	150.06	146.77	121.32	147.49
199	147.41	150.69	151.24	147.96	122.63	148.65
200	149.01	151.89	152.50	149.24	124.05	149.93
201	150.71	153.20	153.87	150.64	125.61	151.29
202	152.55	154.62	155.36	152.15	127.35	152.76
203	154.57	156.19	156.95	153.79	129.29	154.39
204	156.76	157.93	158.72	155.63	131.52	156.18
205	159.18	159.87	160.71	157.68	134.10	158.21
206	161.87	162.01	162.95	160.00	137.17	160.50
207	164.94	164.69	165.53	162.70	140.93	163.16
208	168.48	167.74	168.58	165.88	145.70	166.32

Self-Care Raw Score	AS transformed	CP transformed	SLE transformed	SS transformed	CULD transformed	OA PSS RA transformed
209	172.69	171.54	172.34	169.83	152.00	170.20
210	177.91	176.41	177.19	174.91	160.54	175.27
211	184.95	183.31	183.97	182.07	172.38	182.36
212	195.92	194.58	195.01	193.81	189.18	193.97
213	213.00	213.00	213.00	213.00	213.00	213.00

APPENDIX 2: MOBILITY COMPONENT

TRANSFORMATION TABLE

FOR RA, AS, OA, SLE, SS, CULD, CP, PSS

Mobility	Converted Raw Score Equivalents					
Raw Score	transformed AS	transformed CP	transformed SS	transformed CULD	transformed RA	transformed OA SLE PSS
0	0	0	0	0	0	0
1	11.57	13.36	13.26	14.85	13.59	13.58
2	19.11	21.68	21.49	23.92	22.03	22.02
3	24.04	26.87	26.60	29.48	27.23	27.26
4	27.70	30.60	30.27	33.39	30.99	31.02
5	30.64	33.52	33.13	36.33	33.91	33.94
6	33.10	35.89	35.47	38.71	36.29	36.33
7	35.18	37.90	37.45	40.67	38.30	38.37
8	37.02	39.64	39.15	42.32	40.03	40.11
9	38.64	41.19	40.66	43.76	41.57	41.66
10	40.10	42.56	42.01	45.04	42.93	43.05
11	41.41	43.82	43.24	46.16	44.18	44.31
12	42.58	44.96	44.35	47.21	45.31	45.44
13	43.67	46.01	45.39	48.15	46.38	46.51
14	44.66	46.99	46.33	49.04	47.34	47.47
15	45.58	47.90	47.23	49.86	48.26	48.40
16	46.43	48.75	48.07	50.66	49.11	49.26
17	47.22	49.56	48.85	51.39	49.90	50.08
18	47.97	50.33	49.61	52.10	50.66	50.83
19	48.66	51.06	50.30	52.79	51.39	51.57
20	49.33	51.75	50.99	53.45	52.10	52.26
21	49.95	52.40	51.65	54.09	52.74	52.95
22	50.53	53.05	52.29	54.71	53.39	53.58
23	51.10	53.66	52.88	55.32	54.02	54.21
24	51.66	54.27	53.48	55.92	54.60	54.82
25	52.18	54.83	54.05	56.51	55.19	55.41
26	52.68	55.40	54.60	57.08	55.75	55.98
27	53.17	55.95	55.15	57.65	56.29	56.54
28	53.64	56.48	55.66	58.22	56.84	57.07
29	54.12	57.00	56.20	58.77	57.36	57.61

Mobility Raw Score	transformed AS	transformed CP	transformed SS	transformed CULD	transformed RA	transformed OA SLE PSS
30	54.56	57.51	56.69	59.34	57.88	58.12
31	54.99	57.99	57.18	59.89	58.38	58.62
32	55.42	58.48	57.67	60.44	58.86	59.12
33	55.84	58.95	58.14	60.99	59.34	59.61
34	56.25	59.42	58.61	61.51	59.82	60.09
35	56.66	59.88	59.06	62.06	60.28	60.55
36	57.05	60.33	59.49	62.59	60.74	61.01
37	57.42	60.78	59.94	63.11	61.20	61.47
38	57.80	61.20	60.37	63.64	61.64	61.91
39	58.17	61.63	60.78	64.17	62.08	62.36
40	58.53	62.05	61.21	64.69	62.50	62.78
41	58.89	62.46	61.60	65.19	62.91	63.19
42	59.23	62.86	62.01	65.72	63.33	63.61
43	59.58	63.25	62.40	66.22	63.73	64.01
44	59.92	63.65	62.79	66.72	64.12	64.41
45	60.24	64.04	63.18	67.23	64.52	64.81
46	60.57	64.42	63.56	67.71	64.92	65.21
47	60.90	64.79	63.93	68.21	65.31	65.61
48	61.21	65.18	64.32	68.69	65.69	65.99
49	61.53	65.54	64.69	69.17	66.07	66.36
50	61.84	65.91	65.06	69.65	66.44	66.74
51	62.15	66.27	65.43	70.11	66.80	67.12
52	62.46	66.64	65.79	70.59	67.17	67.50
53	62.77	67.00	66.16	71.04	67.55	67.88
54	63.08	67.37	66.53	71.50	67.92	68.25
55	63.39	67.73	66.92	71.96	68.28	68.63
56	63.70	68.10	67.29	72.41	68.66	69.01
57	64.01	68.46	67.66	72.87	69.01	69.41
58	64.32	68.83	68.05	73.31	69.39	69.79
59	64.63	69.19	68.41	73.74	69.76	70.16
60	64.95	69.56	68.80	74.20	70.12	70.56
61	65.26	69.92	69.17	74.63	70.49	70.94

Mobility Raw Score	transformed AS	transformed CP	transformed SS	transformed CULD	transformed RA	transformed OA SLE PSS
62	65.59	70.31	69.56	75.07	70.87	71.34
63	65.90	70.67	69.95	75.50	71.24	71.74
64	66.22	71.06	70.34	75.91	71.62	72.14
65	66.55	71.44	70.75	76.34	72.00	72.53
66	66.88	71.83	71.14	76.78	72.39	72.93
67	67.20	72.21	71.55	77.19	72.77	73.33
68	67.53	72.60	71.93	77.62	73.17	73.75
69	67.87	72.98	72.34	78.04	73.54	74.15
70	68.20	73.39	72.73	78.45	73.94	74.57
71	68.52	73.77	73.14	78.88	74.34	74.97
72	68.85	74.20	73.55	79.29	74.71	75.39
73	69.17	74.56	73.96	79.70	75.11	75.81
74	69.50	74.97	74.37	80.12	75.50	76.23
75	69.83	75.36	74.78	80.53	75.90	76.63
76	70.15	75.76	75.19	80.94	76.30	77.05
77	70.48	76.15	75.58	81.33	76.69	77.47
78	70.79	76.55	75.99	81.74	77.09	77.89
79	71.11	76.96	76.40	82.13	77.51	78.31
80	71.42	77.36	76.81	82.51	77.91	78.73
81	71.73	77.75	77.21	82.90	78.30	79.15
82	72.04	78.15	77.62	83.27	78.70	79.57
83	72.35	78.56	78.03	83.63	79.10	79.99
84	72.66	78.94	78.44	84.00	79.51	80.38
85	72.97	79.35	78.85	84.34	79.91	80.80
86	73.28	79.76	79.26	84.71	80.31	81.22
87	73.59	80.16	79.67	85.03	80.70	81.64
88	73.88	80.55	80.08	85.37	81.12	82.06
89	74.19	80.95	80.49	85.69	81.52	82.48
90	74.50	81.36	80.90	86.01	81.94	82.90
91	74.80	81.76	81.31	86.31	82.33	83.32
92	75.11	82.17	81.74	86.61	82.75	83.74
93	75.41	82.57	82.15	86.90	83.17	84.16

Mobility Raw Score	transformed AS	transformed CP	transformed SS	transformed CULD	transformed RA	transformed OA SLE PSS
94	75.72	82.98	82.56	87.20	83.58	84.58
95	76.03	83.37	82.97	87.47	84.00	85.00
96	76.36	83.79	83.39	87.77	84.42	85.42
97	76.70	84.20	83.80	88.07	84.84	85.84
98	77.00	84.60	84.23	88.34	85.26	86.26
99	77.32	85.01	84.64	88.64	85.69	86.70
100	77.65	85.41	85.07	88.91	86.11	87.12
101	77.97	85.84	85.50	89.21	86.55	87.54
102	78.31	86.25	85.93	89.48	86.99	87.98
103	78.66	86.67	86.36	89.78	87.43	88.40
104	79.00	87.10	86.79	90.08	87.87	88.84
105	79.34	87.50	87.22	90.38	88.33	89.26
106	79.70	87.93	87.67	90.70	88.76	89.70
107	80.06	88.37	88.12	91.02	89.22	90.14
108	80.42	88.80	88.55	91.34	89.68	90.58
109	80.79	89.22	89.02	91.66	90.14	91.02
110	81.17	89.67	89.47	92.02	90.62	91.47
111	81.56	90.12	89.92	92.36	91.10	91.91
112	81.95	90.56	90.39	92.75	91.58	92.35
113	82.34	91.03	90.89	93.14	92.06	92.81
114	82.75	91.48	91.36	93.55	92.54	93.27
115	83.15	91.94	91.85	93.96	93.04	93.73
116	83.58	92.43	92.36	94.40	93.54	94.19
117	84.02	92.90	92.85	94.85	94.07	94.68
118	84.46	93.40	93.38	95.33	94.57	95.16
119	84.93	93.89	93.91	95.81	95.11	95.64
120	85.40	94.41	94.47	96.32	95.63	96.15
121	85.89	94.94	95.02	96.84	96.18	96.65
122	86.40	95.47	95.59	97.39	96.74	97.15
123	86.94	96.04	96.21	97.94	97.30	97.68
124	87.51	96.61	96.82	98.51	97.87	98.22
125	88.09	97.22	97.45	99.10	98.47	98.79

Mobility Raw Score	transformed AS	transformed CP	transformed SS	transformed CULD	transformed RA	transformed OA SLE PSS
126	88.71	97.82	98.13	99.72	99.08	99.36
127	89.38	98.47	98.83	100.34	99.71	99.97
128	90.10	99.14	99.54	100.98	100.35	100.57
129	90.85	99.85	100.30	101.66	101.02	101.23
130	91.68	100.58	101.10	102.35	101.73	101.90
131	92.59	101.37	101.94	103.06	102.46	102.61
132	93.57	102.20	102.84	103.81	103.25	103.37
133	94.68	103.06	103.76	104.59	104.07	104.18
134	95.90	104.03	104.76	105.41	104.97	105.04
135	97.27	105.04	105.82	106.30	105.91	105.97
136	98.81	106.16	106.95	107.24	106.95	107.00
137	100.56	107.36	108.18	108.24	108.08	108.11
138	102.53	108.69	109.51	109.36	109.35	109.35
139	104.75	110.15	110.98	110.58	110.75	110.73
140	107.24	111.82	112.60	111.97	112.36	112.33
141	110.04	113.72	114.46	113.59	114.22	114.17
142	113.20	115.97	116.63	115.51	116.41	116.36
143	116.84	118.67	119.25	117.91	119.08	119.02
144	121.19	122.12	122.59	121.09	122.51	122.44
145	126.73	126.90	127.23	125.73	127.23	127.15
146	134.93	134.59	134.76	133.61	134.81	134.74
147	147.00	147.00	147.00	147.00	147.00	147.00