Supplemental Digital Content One

List of items rejected from the empowerment PROM, the main reason for rejection, and the corresponding response dependency (item residual correlation) and fit to the Rasch model data (Fit residual, chi-square statistic, ANOVA F statistic) contributing to their ultimate rejection.

Item	Item Content	Item rejected in Round	Main reason for rejection	Round One - Item residual correlation (correlated item)	Round One - Fit to the Rasch model			Round Two - Item residual correlation (correlated item)	Round Two - Fit to the Rasch model		
					FitResid	ChiSq	F-stat		FitResid	ChiSq	F-stat
2	I know how to encourage people to speak so that I can hear them clearly	1	Response dependency	0.364 (item 26)	1.176	5.157	0.9528				
3	I know how to get help if there are problems with my hearing device(s)	1	Response dependency; Poor fit; Reversed thresholds	0.410 (item 4)	-1.045	9.908	2.2936				
5	I understand what my hearing test results mean	2	Reversed thresholds					n/a*	-1.067	2.49	0.5723
6	I understand information given to me by my hearing care professional	1	Response dependency; Poor fit	0.444 (item 5)	-2.265	13.033	3.5012				
9	I know how to clean, care and maintain my	1	Response dependency	0.594 (item 15)	-0.375	2.633	0.5855				

	hearing device(s) and accessories										
10	I know what situations are challenging and difficult for me to hear in (e.g. in crowds, in the car)	2	Poor fit; Reversed thresholds					n/a*	1.385	12.322	2.239
12	I search for other ways to help me communicate when I need to (e.g. look online or ask a friend)	1	Response dependency; Poor fit	0.372 (item 11); 0.615 (item 14)	3.445	11.147	1.6446				
13	I use tactics to help me cope with challenges related to my hearing loss (e.g. overcoming frustration)	1	Response dependency; Poor fit	0.461 (item 14)	1.244	7.313	1.4038				
16	I work with my hearing care professional to make decisions about my hearing care (e.g. hearing devices)	1	Response dependency; Poor fit	0.420 (item 17); 0.356 (item 18)	-1.825	5.971	1.4773				
18	I ask my hearing care professional to adjust my hearing device(s) when needed	1	Response dependency; Poor fit	0.356 (item 16); 0.537 (item 17)	2.241	1.004	0.2406				

#	Item		Issue	Dependency							
19	I ask my hearing care professional to give me information in another way when needed (e.g. written, diagrams, videos)	2	Missing responses					n/a*	2.218	16.181	3.0014
21	My hearing loss stops me from feeling included in my social activities	1	Response dependency; Poor fit	0.899 (item 22)	11.153	190.202	16.3835				
24	I make the day-to-day decisions about my hearing device(s) (e.g. whether I wear it, how I set it)	2	Poor fit; Reversed thresholds					n/a*	0.032	26.325	5.7431
27	I am confident I can use my hearing device(s) properly	1	Response dependency; Poor fit	0.444 (item 22)	-2.45	17.733	4.4316				
29	I am confident talking with my hearing care professional about any problems I have with my hearing or hearing device(s)	1	Response dependency; Poor fit	0.352 (item 17)	-2.064	16.601	4.264				
30	I am confident making decisions about my hearing care	1	Response dependency; Poor fit	0.306 (item 22); 0.334 (item 27)	-3.141	24.163	6.9109				

32	I ask for additional information from my hearing care professional when needed	1	Response dependency; Poor fit	0.345 (item 31)	-1.233	16.349	3.7286				
33	I have the confidence to tell people that I have hearing loss and what I need from them	1	Response dependency	0.374 (item 26)	0.52	5.19	1.1319				

n/a* = the item residual correlation was below 0.3