

Table 2. Rasch fit statistics, item measure and differential item functioning (DIF) contrasts for the 20-item and 22 item age-appropriate VQoL instrument extensions, and DIF contrasts for the overlapping items (overlapping items shown in bold).

VQoL_Child	VQoL_Young Person	VQoL_Child					VQoL_ Young Person					Core items
Item	Item	Item measure (logits)	Infit MNSQ*	Outfit MNSQ	DIF** contrast by age (logits)	DIF contrast by gender (logits)	Item measure (logits)	Infit MNSQ	Outfit MNSQ	DIF contrast by age (logits)	DIF contrast by gender (logits)	DIF contrast by sample (i.e. children v.s young people)
I make new friends easily	I make new friends easily	0.44	0.98	0.96	-0.27	-0.16	0.47	0.91	0.86	-0.75	0.41	.25
I keep friends easily	I keep friends easily	-0.39	0.84	0.83	0.1	-0.11	-0.52	0.81	0.96	0	0.22	-.27
	I am happy with my social life						-0.25	0.89	0.83	0.44	-0.29	
	I spend enough time with my friends						0.06	1.19	1.13	0.48	0.16	
Other children pick on me because of my eyesight		-0.3	1.04	1.02	0.57	0.49						
I can stand up for myself if someone picks on me		0.01	1.28	1.24	-0.12	0.23						
My friends understand how things are for me because of my eyesight		-0.29	1.04	1.1	0.22	0.2						

	I get treated the same as everyone else							-0.22	1.18	1.19	-0.59	-0.1	
	I feel like I fit in							-0.25	1.01	0.9	0.08	-0.4	
My friends encourage me to join in their activities	My friends encourage me to join in their activities	0.26	1.28	1.45	0	0.42		-0.51	1.02	0.94	0	-0.18	-0.29
I feel different from other children because of my eyesight	I feel different from other young people because of my eyesight	0.94	0.95	0.97	0.11	0.22		0.62	0.97	0.98	0.27	-0.57	-0.16
I feel left out because of my eyesight	I feel left out because of my eyesight	-0.08	0.65	0.62	-0.08	0.09		-0.5	1.01	0.89	0.34	-0.33	-0.14
I can decide things for myself		-0.78	1	1.2	0.77	0.24							
I am independent at home	I am independent at home	-0.44	0.94	0.95	0.14	0.17		-0.37	1.07	1.12	-0.1	-0.19	.00
I am independent at school	I am independent at school/college	-0.11	0.94	0.94	0	0.27		-0.03	0.8	0.83	0.06	0.22	-0.11
	I can do most activities on my own							0.19	1	0.95	-0.18	0.54	
People give me a chance to do things for myself		-0.34	0.79	0.76	0.21	-0.1							
I am happy asking for help	I am comfortable asking for help	-0.52	1.13	1.02	-0.54	-0.11		-0.02	1.03	1.06	0.06	0.2	.06
I cope well with my eyesight problems	I cope well with my eyesight problems	-0.74	1.02	0.97	-0.7	-0.79		-0.49	0.89	0.83	-0.16	-0.22	.06

I feel tired because of my eyesight		0.74	1.28	1.35	0.39	-0.52							
I feel frustrated because of my eyesight	I feel frustrated because of my eyesight	0.51	0.96	1.05	0	-0.09	0.78	1.38	1.53	-0.06	-0.07	.00	
	I feel confident						0.27	0.74	0.75	0	0.5		
Other people are fair to me		-0.13	0.67	0.65	0.05	0							
I worry what other people think of me because of my eyesight	I worry what other people think of me because of my eyesight	0.25	1.16	1.23	-0.53	0.17	0.45	1.13	1.02	-0.28	0.26	.00	
	I am positive about the future						0.08	0.91	0.96	0	-0.11		
	I am confident I will be able to look after myself in the future						-0.03	0.93	0.83	-0.03	0		
	I worry about what job I will be able to do in the future						0.62	0.96	0.96	-0.03	0.53		
	I like to have a go at everything						-0.19	0.95	0.88	0.46	-0.27		
I like being at school	I enjoy school/college	-0.37	0.99	0.94	-0.33	-0.36	-0.16	1.19	1.21	0.06	-0.67	-.02	
I have to work harder at school because of my eyesight		1.34	1.09	1.12	0	-0.33							

*MNSQ = Mean square standardized residual within the pre-defined interval (0.5, 1.5)¹⁷ **DIF = Differential item functioning within a 1 logit threshold^{24, 27}