

# Vision and Night Driving Questionnaire (VND-Q)

The Vision and Night Driving Questionnaire (VND-Q) is a 9-item self-report measure of vision-related night driving difficulties that uses a 5-point Likert-type scale format, with responses ranging from 1 = 'No difficulty' to 5 = 'Extreme difficulty'.

The VND-Q authors, Kimlin et al., grant permission to use the questionnaire by citing the following reference:

*Kimlin JA, Black A, Djaja N, Wood JM. (2016) Development and validation of a vision and night driving questionnaire. Ophthalmic and Physiological Optics, 36(4), 465-476.*

Changes to the VND-Q may be made without the written permission from the authors. However, all such changes should be clearly identified as having been made by the recipient.

## **Instructions on use**

The VND-Q has been designed and validated for use as a self-administered questionnaire.

## Vision and Night Driving Questionnaire (VND-Q)

This questionnaire asks about your visual difficulties when driving at night. For each question, please select the answer that best describes your situation and answer **as if you were wearing the glasses or contact lenses that you would normally wear (if any) for night driving.** Please answer each question as accurately and as quickly as possible. Do not dwell too long on any particular question.

### How much difficulty do you, or would you have, with the following night driving tasks?

1. Seeing dark coloured cars when driving at night?	No difficulty ..... 1 A little difficulty ..... 2 Moderate difficulty ..... 3 A lot of difficulty ..... 4 Extreme difficulty ..... 5
2. Seeing pedestrians or animals on the road side when driving at night?	No difficulty ..... 1 A little difficulty ..... 2 Moderate difficulty ..... 3 A lot of difficulty ..... 4 Extreme difficulty ..... 5
3. Reading street signs when driving at night?	No difficulty ..... 1 A little difficulty ..... 2 Moderate difficulty ..... 3 A lot of difficulty ..... 4 Extreme difficulty ..... 5
4. Seeing the road because of oncoming headlights when driving at night?	No difficulty ..... 1 A little difficulty ..... 2 Moderate difficulty ..... 3 A lot of difficulty ..... 4 Extreme difficulty ..... 5

<p>5. Seeing because of glare when driving at dawn or dusk?</p>	<p>No difficulty ..... 1  A little difficulty ..... 2  Moderate difficulty ..... 3  A lot of difficulty ..... 4  Extreme difficulty ..... 5</p>
<p>6. Adjusting after passing headlights from oncoming cars when driving at night?</p>	<p>No difficulty ..... 1  A little difficulty ..... 2  Moderate difficulty ..... 3  A lot of difficulty ..... 4  Extreme difficulty ..... 5</p>
<p>7. Judging the distance to your turn-off or exit while driving at night?</p>	<p>No difficulty ..... 1  A little difficulty ..... 2  Moderate difficulty ..... 3  A lot of difficulty ..... 4  Extreme difficulty ..... 5</p>
<p>8. Judging the distance between you and other moving cars when driving at night?</p>	<p>No difficulty ..... 1  A little difficulty ..... 2  Moderate difficulty ..... 3  A lot of difficulty ..... 4  Extreme difficulty ..... 5</p>
<p>9. Seeing the road in rain or poor weather when driving at night?</p>	<p>No difficulty ..... 1  A little difficulty ..... 2  Moderate difficulty ..... 3  A lot of difficulty ..... 4  Extreme difficulty ..... 5</p>

## Vision and Night Driving Questionnaire (VND-Q) – Ordinal to Interval Conversion Table

The ordinal VND-Q score, by summing the items response scores, can be converted to a Rasch-scaled interval-level score ranging from 0 to 10, thus making the VND-Q score suitable for parametric statistics. Higher scores represent more vision-related night driving difficulties. This table cannot be used for respondents with missing data.

Ordinal Score	Logits	Interval Scale Score
9	-7.72	0.00
10	-6.38	0.88
11	-5.49	1.46
12	-4.87	1.87
13	-4.35	2.21
14	-3.9	2.50
15	-3.49	2.77
16	-3.1	3.03
17	-2.74	3.26
18	-2.4	3.48
19	-2.08	3.69
20	-1.77	3.90
21	-1.48	4.09
22	-1.2	4.27
23	-0.93	4.45
24	-0.67	4.62
25	-0.41	4.79
26	-0.16	4.95
27	0.09	5.11
28	0.34	5.28
29	0.59	5.44
30	0.84	5.61

Ordinal Score	Logits	Interval Scale Score
31	1.1	5.78
32	1.35	5.94
33	1.61	6.11
34	1.87	6.28
35	2.15	6.46
36	2.43	6.65
37	2.72	6.84
38	3.04	7.05
39	3.37	7.26
40	3.74	7.50
41	4.16	7.78
42	4.64	8.09
43	5.26	8.50
44	6.18	9.10
45	7.55	10.00