

# Neuropsychological Processing Concerns Checklist-2: Differences Between Diagnostic Groups for Teacher Raters

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NPCC-2 Subdomain Scores	Number of Items	Mean SLD Ratings <i>n</i> = 183	Mean ADD/ADHD Ratings <i>n</i> = 115	Mean Autism Ratings <i>n</i> = 46	Mean Neuro/Medical Ratings <i>n</i> = 106	Mean SED Ratings <i>n</i> = 31	ANOVA <i>F</i> , <i>p</i>	Eta Squared
<b>Sensorimotor Functions</b>								
Motor Functioning	8	2.90 (2.95)	2.87 (2.84)	3.11 (2.53)	4.01 (3.19)	3.03 (3.11)	2.78*	.023
Tactile/Olfaction Functioning	4	.77 (1.20)	.73 (1.04)	1.00 (1.07)	1.07 (1.19)	.65 (.99)	1.92, ns	.016
Visual Functioning	3	.76 (1.01)	.59 (.90)	.69 (.95)	.98 (1.20)	.52 (.93)	2.51*	.021
Auditory Functioning	4	1.14 (1.57)	1.07 (1.52)	1.31 (1.35)	1.40 (1.54)	.90 (1.35)	1.07, ns	.009
Visual-Spatial Functioning	5	2.60 (2.25)	2.87 (2.61)	2.38 (2.26)	3.40 (2.53)	2.35 (2.09)	2.86*	.024
<b>Attention Functions</b>								
Focused/Selective Attention	3	4.23 (2.11)	4.65 (2.01)	3.80 (2.22)	4.32 (2.04)	4.26 (2.35)	1.45, ns	.012
Sustained Attention	3	4.32 (2.35)	4.77 (2.29)	4.04 (2.36)	4.87 (2.13)	4.77 (2.28)	1.83, ns	.015
Shifting Attention	3	2.58 (1.75)	3.10 (2.15)	2.71 (1.84)	2.98 (2.01)	2.97 (2.17)	1.55, ns	.013
Divided Attention	3	2.69 (1.72)	2.92 (1.83)	2.73 (1.67)	2.96 (1.69)	3.03 (1.85)	.64, ns	.005
Attentional Capacity	3	4.27 (2.60)	4.53 (2.50)	3.80 (2.63)	4.68 (2.38)	4.76 (2.89)	1.27, ns	.011
<b>Language Functions</b>								
Articulation	3	1.79 (1.88)	1.56 (1.74)	1.49 (1.46)	1.88 (1.78)	1.13 (1.71)	1.48, ns	.012
Phonological Processing	3	2.30 (2.19)	1.93 (1.76)	1.96 (1.88)	2.28 (1.81)	1.68 (2.10)	1.27, ns	.011
Receptive Language	2	1.72 (1.30)	1.82 (1.19)	1.53 (1.34)	2.04 (1.13)	1.71 (1.27)	1.72, ns	.014
Expressive Language	4	2.36 (1.92)	2.23 (2.06)	2.36 (2.08)	2.67 (1.86)	2.00 (1.73)	1.05, ns	.009
<b>Learning and Memory Functions</b>								
Short-Term Memory	5	6.51 (3.52)	6.82 (3.67)	5.87 (3.42)	6.89 (3.17)	6.81 (2.07)	.89, ns	.008
Active Working Memory	4	5.09 (2.91)	5.13 (2.96)	4.67 (2.61)	5.35 (2.95)	5.26 (2.38)	.46, ns	.004
Long-Term Memory	6	6.55 (3.26)	6.93 (3.47)	6.62 (3.21)	7.18 (3.33)	7.26 (2.74)	.82, ns	.007
General Learning	3	3.55 (2.09)	3.32 (2.27)	3.36 (2.23)	3.82 (2.12)	3.00 (1.95)	1.27, ns	.011

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<b>Executive Functions</b>								
Problem Solving, Planning, and Organizing	7	9.19 (4.59)	9.21 (4.40)	8.96 (4.71)	9.73 (4.74)	10.28 (4.43)	.65, ns	.006
Behavioral/Emotional Regulation	8	7.97 (4.73)	8.64 (5.35)	8.73 (4.12)	8.66 (4.43)	10.23 (5.91)	1.71, ns	.014
<b>Speed and Efficiency of Cognitive Processing</b>								
Speed and Efficiency of Cognitive Processing	7	9.19 (4.34)	8.90 (4.59)	9.00 (4.15)	9.99 (3.89)	10.18 (4.32)	1.31, ns	.011
<b>Reading Skills</b>								
Attention Functions	3	4.23 (2.19)	4.22 (2.31)	3.91 (1.89)	4.60 (2.10)	4.45 (2.26)	.99, ns	.008
Phonological Processing and Fluency	3	4.12 (2.29)	3.65 (2.17)	3.42 (2.08)	4.02 (2.07)	4.00 (2.28)	1.42, ns	.012
Comprehension and Memory	2	2.84 (1.59)	2.53 (1.62)	2.78 (1.62)	2.90 (1.41)	2.87 (1.65)	.94, ns	.008
Attitudinal Issues	3	2.97 (2.10)	3.01 (2.24)	3.27 (2.38)	3.14 (2.03)	3.45 (2.20)	.48, ns	.004
<b>Writing Skills</b>								
Graphomotor Output	9	7.95 (4.31)	8.05 (4.44)	7.53 (4.06)	8.45 (4.30)	7.87 (4.34)	.42, ns	.004
Spatial Production	2	2.25 (1.63)	2.32 (1.70)	2.09 (1.38)	2.28 (1.66)	2.39 (2.08)	.20, ns	.002
Expressive Language	7	10.78 (4.78)	10.31 (5.00)	9.56 (4.86)	10.79 (4.43)	11.19 (5.38)	.86, ns	.007
Attitudinal Issues	2	2.04 (1.65)	2.05 (1.55)	2.27 (1.42)	2.36 (1.49)	2.58 (1.84)	1.38, ns	.012
<b>Mathematics Skills</b>								
Attentional Functions	2	2.92 (1.52)	3.03 (1.52)	2.73 (1.45)	2.79 (1.64)	2.90 (1.64)	.46, ns	.004
Computational Knowledge	2	3.25 (1.76)	3.21 (1.74)	3.11 (1.68)	3.16 (1.77)	3.13 (2.11)	.09, ns	.001
Mathematic Reasoning/Comprehension	2	2.86 (1.49)	2.81 (1.53)	3.04 (1.51)	2.83 (1.44)	2.84 (1.70)	.21, ns	.002
Attitudinal Issues	2	1.91 (1.39)	1.68 (1.36)	2.00 (1.45)	1.97 (1.51)	1.81 (1.62)	.78, ns	.007

## Conclusions:

- The NPCC-2 - Teacher version should only be used to help clarify the referral questions and select assessment tools to verify the areas of concern. The rating scale should not be used for differential diagnostic purposes.
- While there was not a significant statistical difference between the mean teacher ratings between the diagnosis groups, several of the sensorimotor function subdomain scores were significant at the univariate level. The neurologically/medical impaired group had the highest teacher ratings for motor, visual, and visual-spatial NPCC-2 items.