

Table 2h
Summary of CHC cognitive-basic math skills studies : 9-13 years

General, broad and narrow CHC abilities included in studies ^b

Study ^a	Sample or subsample	g	Brd Math	Gs P RE/R4 AC/EF	Gsm MW MS	Gv SR/Vz MV CS SS	Ga PC US/UR	Glr MA NA MM M6	Gf I RG RQ	Gc LD/VL K0 LS VL
Manifest variables-no g										
2. McGrew & Hessler (1995)	b. 9-13 yrs ^c			X		O	O	O	X	X
4. Floyd et al. (2003)	b. 9-13 yrs ^d				X X	O	O	O	X	X
5. McGrew (2007)	c. 9-13 yrs ^e			X O X	X O	O O O O	X O	O O X	O X X	O O X O
	d. 9-13 yrs ^f			X O X	X O	O O O O	X O	O X O	O O X	O O O O
8. Proctor et al. (2005)	6-18 yrs ^d			O	O	O	O	O	O	O
10. Hale et al. (2008)	a. 6-17 yrs ^g			O	X	X			X	X
	b. 6-17 yrs ^g			X	X	O		O	O	X
#s / #t				1/3 3/3 0/2 2/2	1/2 5/5 0/3	1/5 0/2 0/2 0/2 0/2	0/2 2/3 0/2	0/2 0/3 1/2 1/2 0/2	3/5 0/2 1/2 2/2	4/7 0/2 1/2 0/2
Latent variables- g included										
12. Keith (1999)	b. 5-8th gr ^h	X X		X		O	O		O	X
16. Taub et al. (2008)	c. 9-13 yrs ⁱ	X		X	O	O	O	O	X	X
17. McGrew (2008) ^j	a. 3-5th gr ^d	X		X	O	O	O	O	O	O
	b. 3-5th gr ^d	X		X	O	O	O	X ⁱ	X ⁱ	O
19. Benson & Moseley (2009) ^k	c. 9-13 yrs ^d	X		X	O	O	O	O	X	O
#s / #t		5/5 1/1	4/4 1/1		0/4 0/1	0/4	0/4 0/1	1/4	3/5	2/5
Grand #s / #t		5/5 1/1	5/7 4/4 0/2 2/2	1/6 5/5 0/4	1/9 0/2 0/2 0/2 0/2	0/6 2/4 0/2	1/6 0/3 1/2 1/2 0/2	6/10 0/2 1/2 2/2	6/12 0/2 1/2 0/2	

Note. X = significant effect/relation reported; O = no significant effect/relation reported for cognitive ability that was included as an IV. Blank space indicates that cognitive ability was not included as an IV.

Note. #s / #t = # times cognitive ability was significant / total # of times cognitive ability was included in analysis. 50+% in bold font.

^a See Table 1 for summary of study characteristics.

^b See Newton & McGrew (2009) for definitions of broad and narrow CHC abilities.

^c DV was WJ-R Basic Math Skills (BMS) cluster or LV defined by the WJ-R tests (Calculation; Quantitative Concepts) that comprise the BMS cluster.

^d DV was WJ III Basic Math Skills (BMS) cluster or LV defined by the WJIII tests (Calculation; Math Fluency) that comprise the BMS cluster.

^e DV was WJ-R or WJ-III Calculation test. ^f DV was WJ III Math Fluency test.

^g DV was WIAT-II Numerical Operations test.

^h WJ-R Calculation and Quantitative Concepts tests represented separate DV (LVs) in a single SEM model. Significance (X) recorded for a cognitive ability if it was significantly associated with either test (or both).

ⁱ DV was a Broad Math (BM) LV defined by WJ III Calculation (BMS) and Applied Problems (MR) tests. Thus, Taub et al. (2008) is included in both the BMS and MR summary tables.

^j McGrew (2008) samples a/b are based on the same subjects analyzed by SEM models that treated g as direct+indirect effect (a) or indirect effect only (b).

^k Benson (2009) g+broad "information processing model" included a linguistic/language comprehension LV (C = Comprehension) defined by the WJ III Understanding Directions, Story Recall, Passage Comprehension and Reading Vocabulary tests. This Comprehension LV is not included in the summary table although any indirect effects for other broad CHC LV's mediated by this LV are included for the respective CHC broad LV.

^l In McGrew (2008b) two equally plausible models were identified. Both had significant effects for Gs. Glr was significant in one (and not in other), and vice versa for Gf.