



# PAT Grammar and Punctuation

Norm sample (2010)



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## Description of the 2010 PAT Grammar and Punctuation norm sample

In March 2010, normative data for PAT Grammar and Punctuation were collected in a national, representative sample of primary and secondary schools. The national sample consisted of 6714 students from Year 3 to Year 10. The students were drawn from 63 schools across all states and territories except the Northern Territory. All education sectors were represented in the samples.

Table 1 shows the number of students who provided PAT Grammar and Punctuation norm data for each year level from each state or territory, and Table 2 from each school sector.

**Table 1** Students in the PAT Grammar and Punctuation norm sample by year level and state/territory

Year level	ACT	NSW	QLD	SA	TAS	VIC	WA	TOTAL
<b>3</b>	20	223	181	17	33	282	50	<b>806</b>
<b>4</b>	24	232	264	24	30	263	47	<b>884</b>
<b>5</b>	22	281	241	21	30	255	66	<b>916</b>
<b>6</b>	21	210	215	56	27	274	64	<b>867</b>
<b>7</b>	70	313	245	44	0	154	47	<b>873</b>
<b>8</b>	75	308	204	77	0	93	56	<b>813</b>
<b>9</b>	68	331	197	72	0	124	54	<b>846</b>
<b>10</b>	61	277	186	44	0	93	48	<b>709</b>
<b>TOTAL</b>	<b>361</b>	<b>2175</b>	<b>1733</b>	<b>355</b>	<b>120</b>	<b>1538</b>	<b>432</b>	<b>6714</b>

**Table 2** Students in the PAT Grammar and Punctuation norm sample by state/territory and school sector

State/Territory	Government	Catholic	Independent	TOTAL
<b>ACT</b>	361	0	0	<b>361</b>
<b>NSW</b>	901	767	507	<b>2175</b>
<b>QLD</b>	1565	168	0	<b>1733</b>
<b>SA</b>	116	239	0	<b>355</b>
<b>TAS</b>	120	0	0	<b>120</b>
<b>VIC</b>	204	876	458	<b>1538</b>
<b>WA</b>	126	306	0	<b>432</b>
<b>TOTAL</b>	<b>3393</b>	<b>2356</b>	<b>965</b>	<b>6714</b>

## Achievement of students in the norm study

The achievement of students in the PAT Grammar and Punctuation norm samples is shown in Table 3. The table shows the size of the sample and the mean scale score with standard deviation achieved by the sample at each year level. A higher rate of growth is observed in primary school as expected from previous PAT-R norming studies and other studies of reading comprehension (such as TORCH).

**Table 3** PAT Grammar and Punctuation norm sample (2010) achievement statistics by year level

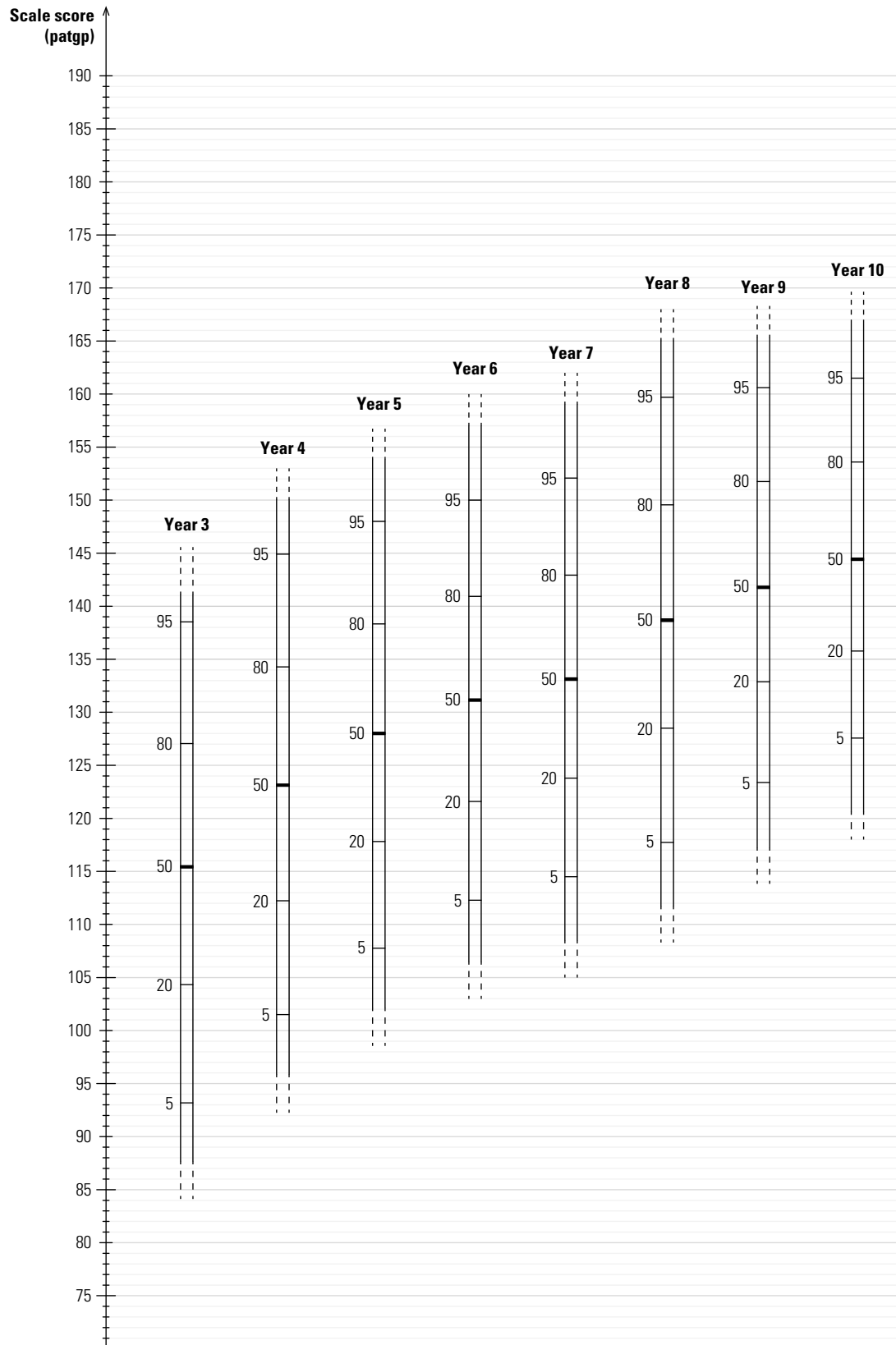
	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Number of students	806	884	916	867	873	813	846	709
Mean scale score all students (patgp)	115.3	123.1	127.9	131.1	133.2	138.7	141.9	144.6
Standard deviation (patgp)	13.6	13.3	12.3	11.5	11.5	12.8	11.3	10.6
Boys (%)	53	50	44	48	50	45	50	45
Mean scale score boys (patgp)	113.9	122.0	126.1	130.6	131.5	136.8	140.5	142.6
Standard deviation boys (patgp)	13.7	14.1	11.8	12.1	11.5	13.2	10.9	10.9
Girls (%)	46	49	55	51	48	53	50	54
Mean scale score girls (patgp)	117.2	124.3	129.5	131.6	135.1	140.5	143.4	146.4
Standard deviation girls (patgp)	12.7	12.2	12.4	10.9	11.3	12.2	11.4	9.9

Note: 87 students did not declare their gender.

Growth on a measurement scale is the improvement achieved by a student measured at two or more points in time. In a snapshot of achievement by year level, as in a norm study, the interpretation of higher achievement by later year levels as growth is justified by the observation in numerous studies that mean achievement of students at a year level tends to remain constant from year to year. Therefore, although the norm data is not longitudinal, it is possible to refer to differences in achievement by year level as growth.

The growth by year level can be viewed graphically in Figure 1 (page 3), which shows the distribution of achievement of the entire sample by year level. Data for achievement in PAT Grammar and Punctuation were collected in March. The results confirm the familiar: generally higher achievement of girls at all year levels has been observed in the previous norming of PAT-R and in other reading achievement studies (such as TORCH). It is not surprising that some gender differences in favour of females were found on the PAT Grammar and Punctuation tests. It has been a common finding over many years that females generally do better than males on measures of language skills.

**Figure 1** PAT Grammar and Punctuation norm sample (2010) achievement by year level



## PAT Grammar and Punctuation score conversion tables

Test 3 score conversion table			PAT Grammar and Punctuation			
Test raw score	Scale score (patgp)	Error (patgp)	Year 3 Percentile	Year 3 Stanine	Year 4 Percentile	Year 4 Stanine
35	163.0	>10.4	99	9	99	9
34	152.4	10.4			98	
33	144.7	7.6	96		94	8
32	139.9	6.4	93	8	89	7
31	136.3	5.7	90		83	
30	133.4	5.2	87	7	78	
29	130.8	4.9	83		71	
28	128.5	4.7	79		6	65
27	126.4	4.5	75	59		
26	124.5	4.3	70	5		54
25	122.6	4.2	66		48	
24	120.9	4.1	61		4	43
23	119.2	4.1	56	38		
22	117.6	4.0	52	3		33
21	116.0	4.0	47		29	
20	114.5	3.9	43		2	25
19	113.0	3.9	39	22		
18	111.5	3.9	34	1		19
17	110.0	3.9	30		16	
16	108.4	3.9	26		1	13
15	106.9	3.9	23	11		
14	105.4	3.9	19	1		9
13	103.9	4.0	16		7	
12	102.3	4.0	14		1	5
11	100.7	4.1	11	4		
10	99.0	4.1	9	1		3
9	97.2	4.3	7		2	
8	95.3	4.4	5		1	2
7	93.3	4.6	3	1		
6	91.1	4.8	2	1		1
5	88.7	5.1	1		1	
4	85.8	5.6	1		1	1
3	82.3	6.3				
2	77.7	7.5				
1	70.2	10.3	1	1	1	1
0	59.8	>10.3				

**Test 4 score conversion table**
*PAT Grammar and Punctuation*

Test raw score	Scale score (patgp)	Error (patgp)	Year 3 Percentile	Year 3 Stanine	Year 4 Percentile	Year 4 Stanine	Year 5 Percentile	Year 5 Stanine
35	170.9	>10.5						
34	160.0	10.5			99	9	99	9
33	152.1	7.7	99	9	98		97	
32	147.2	6.5			96		94	8
31	143.4	5.8	98		93	8	89	
30	140.4	5.3	96		90		84	7
29	137.8	5.0	95		86		79	
28	135.4	4.7	93	8	82	7	72	
27	133.3	4.5	90		77		67	6
26	131.4	4.3	88		73		61	
25	129.5	4.2	85		68	6	55	
24	127.8	4.1	82	7	63		49	5
23	126.1	4.0	78		58		44	
22	124.5	4.0	75		54		39	
21	123.0	3.9	71		49	5	34	4
20	121.4	3.9	67	6	44		29	
19	119.9	3.9	63		40		25	
18	118.5	3.8	59		36		22	
17	117.0	3.8	55		32	4	18	3
16	115.5	3.8	50	5	28		15	
15	114.0	3.8	46		24		12	
14	112.5	3.9	41		21		10	
13	111.0	3.9	37		18	3	8	2
12	109.5	4.0	33		15		6	
11	107.9	4.0	29	4	12		5	
10	106.2	4.1	25		10		3	
9	104.5	4.2	21		8	2	2	
8	102.6	4.4	17	3	6			
7	100.6	4.6	13		4			
6	98.4	4.8	10		3			
5	95.9	5.2	7	2	2			1
4	93.0	5.6	5			1	1	
3	89.5	6.3	2					
2	84.8	7.5		1	1			
1	77.1	10.3	1					
0	66.4	>10.3						

**Test 5 score conversion table**
*PAT Grammar and Punctuation*

Test raw score	Scale score (patgp)	Error (patgp)	Year 4 Percentile	Year 4 Stanine	Year 5 Percentile	Year 5 Stanine	Year 6 Percentile	Year 6 Stanine
35	171.4	>10.3	99	9	99	9	99	9
34	160.9	10.3						
33	153.3	7.5	98					
32	148.6	6.3	97	8	95	8	93	
31	145.1	5.6	95		91		88	
30	142.2	5.2	92	7	87	7	83	7
29	139.7	4.8	89		83		77	
28	137.5	4.6	86		6	78	6	
27	135.5	4.4	82	73		64		
26	133.6	4.3	78	6	67	6	58	5
25	131.8	4.1	74		62		52	
24	130.2	4.1	70		5	57	5	
23	128.5	4.0	65	51		40		
22	127.0	3.9	61	5	47	5	35	4
21	125.5	3.9	57		42		31	
20	124.0	3.8	52		4	37	4	
19	122.5	3.8	48	32		22		
18	121.1	3.8	43	4	28	4	19	3
17	119.7	3.8	39		25		15	
16	118.2	3.8	35		4	21	3	
15	116.8	3.8	31	18		10		
14	115.3	3.8	27	4	15	3	8	2
13	113.9	3.9	24		12		6	
12	112.4	3.9	21		3	10	2	
11	110.8	4.0	17	8		3		
10	109.2	4.1	14	3	6	2	2	1
9	107.5	4.2	12		4		1	
8	105.7	4.3	9		3			
7	103.7	4.5	7	2	2	1	1	
6	101.6	4.7	5	2	1			1
5	99.2	5.1	3			1	1	
4	96.4	5.5	2					
3	93.0	6.2	1	1	1			
2	88.4	7.4						
1	80.9	10.3	1	1	1			
0	70.5	>10.3						



**Test 6 score conversion table**
*PAT Grammar and Punctuation*

Test raw score	Scale score (patgp)	Error (patgp)	Year 5 Percentile	Year 5 Stanine	Year 6 Percentile	Year 6 Stanine	Year 7 Percentile	Year 7 Stanine
35	173.6	>10.4	99	9	99	9	99	9
34	163.2	10.4						
33	155.6	7.6	98	8	98	8	97	8
32	150.8	6.4	96		96			
31	147.1	5.7	94	7	91	7	88	7
30	144.1	5.3	90		87			
29	141.6	4.9	86	6	81	6	76	6
28	139.2	4.7	82		75			
27	137.1	4.5	77	5	69	5	63	5
26	135.2	4.4	72		63			
25	133.3	4.2	67	4	57	4	50	4
24	131.6	4.1	61		51			
23	129.9	4.1	56	3	45	3	38	3
22	128.3	4.0	51		40			
21	126.7	3.9	46	2	34	2	28	2
20	125.2	3.9	41		30			
19	123.7	3.9	36	1	25	1	19	1
18	122.2	3.8	32		21			
17	120.7	3.8	27	1	18	1	13	1
16	119.3	3.8	24		15			
15	117.8	3.8	19	1	12	1	9	1
14	116.3	3.9	17		9			
13	114.8	3.9	14	1	7	1	5	1
12	113.3	3.9	11		6			
11	111.7	4.0	9	1	4	1	3	1
10	110.1	4.1	7		3			
9	108.4	4.2	5	1	2	1	2	1
8	106.5	4.3	4		2			
7	104.6	4.5	2	1	1	1	1	1
6	102.4	4.8	1					
5	100.0	5.1	1	1	1	1	1	1
4	97.1	5.6						
3	93.7	6.3	1	1	1	1	1	1
2	89.0	7.5						
1	81.5	10.3	1	1	1	1	1	1
0	71.2	>10.3						

**Test 7 score conversion table**
*PAT Grammar and Punctuation*

Test raw score	Scale score (patgp)	Error (patgp)	Year 6 Percentile	Year 6 Stanine	Year 7 Percentile	Year 7 Stanine	Year 8 Percentile	Year 8 Stanine
35	175.8	>10.3	99	9	99	9	99	9
34	165.3	10.3					98	
33	157.7	7.5	97		96		8	86
32	153.0	6.3	94	92	7	79		
31	149.4	5.7	90	87		6	72	6
30	146.4	5.2	86	82	6		65	
29	143.9	4.9	81	76		6	58	5
28	141.6	4.7	76	70	5		52	
27	139.5	4.5	70	64		5	46	
26	137.5	4.4	65	58	5		40	4
25	135.6	4.3	59	52		4	34	
24	133.8	4.2	53	46	4		30	
23	132.1	4.1	47	40		4	25	
22	130.3	4.1	41	34	3		21	3
21	128.7	4.1	35	29		3	17	
20	127.0	4.0	30	24	3		14	
19	125.4	4.0	26	19		3	12	
18	123.8	4.0	21	16	2		9	2
17	122.1	4.0	17	13		2	7	
16	120.5	4.1	14	10	2		5	
15	118.8	4.1	11	8		2	4	1
14	117.2	4.1	8	6	1		3	
13	115.4	4.2	6	4		1	2	
12	113.7	4.2	4	3	1		1	1
11	111.9	4.3	3	2		1		
10	110.0	4.4	2	1	1			
9	108.0	4.5	1	1		1	1	1
8	105.9	4.7						
7	103.6	4.8	1	1	1	1	1	
6	101.2	5.1						
5	98.5	5.4	1	1	1	1	1	
4	95.3	5.8						
3	91.5	6.5	1	1	1	1	1	
2	86.6	7.7						
1	78.7	10.5	1	1	1	1	1	
0	67.8	>10.5						

**Test 8 score conversion table**
*PAT Grammar and Punctuation*

Test raw score	Scale score (patgp)	Error (patgp)	Year 7 Percentile	Year 7 Stanine	Year 8 Percentile	Year 8 Stanine	Year 9 Percentile	Year 9 Stanine
35	182.4	>10.3						
34	172.0	10.3	99		99	9	99	9
33	164.4	7.6		9	97		97	
32	159.6	6.4	98		94	8	94	8
31	156.0	5.7	97		91		89	
30	153.0	5.3	96		86	7	83	7
29	150.4	4.9	93	8	81		77	
28	148.1	4.7	90		76	6	70	6
27	146.0	4.5	86		71		64	
26	144.0	4.4	82	7	65		57	
25	142.1	4.3	78		60		50	5
24	140.3	4.2	73		54	5	44	
23	138.6	4.1	68	6	49		38	
22	136.9	4.0	62		44		33	
21	135.3	4.0	57		39	4	28	4
20	133.7	4.0	51		34		23	
19	132.2	3.9	46	5	30		19	
18	130.6	3.9	41		26		15	3
17	129.1	3.9	36		22		12	
16	127.6	3.9	31	4	19	3	10	
15	126.1	3.9	26		16		8	2
14	124.5	3.9	22		13		6	
13	123.0	4.0	18		10		4	
12	121.4	4.0	15	3	8	2	3	
11	119.8	4.1	12		6		2	
10	118.1	4.1	9		5			
9	116.4	4.2	7	2	4			
8	114.5	4.4	5					
7	112.5	4.6	3		2			1
6	110.3	4.8	2					
5	107.9	5.1				1	1	
4	105.1	5.6		1				
3	101.6	6.2			1			
2	97.0	7.4	1					
1	89.5	10.2						
0	79.1	>10.2						

**Test 9 score conversion table**
*PAT Grammar and Punctuation*

Test raw score	Scale score (patgp)	Error (patgp)	Year 8 Percentile	Year 8 Stanine	Year 9 Percentile	Year 9 Stanine	Year 10 Percentile	Year 10 Stanine
35	192.4	>10.3	99	9	99	9	99	9
34	181.7	10.3						
33	174.0	7.6						
32	169.3	6.4						
31	165.7	5.7	98	8	98	8	97	8
30	162.7	5.2	96		96		96	
29	160.1	4.9	95		94		92	
28	157.9	4.7	93		92		89	
27	155.8	4.5	90	7	89	7	85	7
26	153.8	4.3	88		85		80	
25	152.0	4.2	84		81		75	
24	150.3	4.1	81		77		70	
23	148.6	4.0	77	6	72	6	64	6
22	147.0	4.0	74		67		58	
21	145.5	3.9	70		62		53	
20	144.0	3.9	65		57		47	
19	142.5	3.9	61	5	52	5	42	5
18	141.0	3.8	56		46		36	
17	139.5	3.8	52		41		31	
16	138.1	3.8	47		36		27	
15	136.6	3.8	43	4	32	4	22	4
14	135.1	3.9	38		27		18	
13	133.6	3.9	34		23		14	
12	132.0	4.0	29		19		11	
11	130.5	4.0	25	4	15	3	9	3
10	128.8	4.1	21		12		6	
9	127.1	4.2	18		9		4	
8	125.2	4.4	14		7		3	
7	123.3	4.5	11	3	5	2	2	2
6	121.1	4.8	8		3		1	
5	118.7	5.1	5		2			
4	115.8	5.6	3		1			
3	112.4	6.2	1	1		1		1
2	107.8	7.5						
1	100.3	10.3						
0	89.9	>10.3						