

SUPPLEMENT 1

PAT-R

Progressive Achievement Tests in

Reading: Comprehension and Vocabulary

THIRD EDITION

PROGRESSIVE ACHIEVEMENT TESTS IN READING AND VOCABULARY

Acknowledgments

This study of calibrating the seven *RPT* tests onto the *PAT-RC* scale and adding norms for Prep, Year 1 and Year 2 to this scale is the product of work carried out in three different projects.

Molly De Lemos' norming of the *RPT* tests in 1999 (De Lemos, 2000) provided the data for the Prep, Year 1 and Year 2 norms as well as for the test-by-test calibration of the *RPT* items.

The psychometric work carried out by Andrew Stephanou and Daniel Urbach, and the test development completed by Margaret McGregor and Greta Rollo in the *Victorian Learning Difficulties Project* (Rowe, 2006) provided the equating data for the *RPT* tests on the *PAT-RC* scale and the extension of the description of the scale to lower levels.

The methodology used for norming and the preparation of the graphical and tabular reports is the same as that developed for the *PAT-R* series of tests reported in the *PAT-R Teacher manual* prepared by Stephanou, A., Raivars, A. and McGregor, M. in 2001.



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Reading Progress Tests on the PAT-R Comprehension Scale

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Progressive Achievement Tests - Reading

The *Progressive Achievement Tests in Reading (PAT-R)* is a test of reading comprehension and word knowledge. The Reading Comprehension tests consist of four forms of varying difficulty that covers Years 3 to 9. Test results can be used to assess achievements against set objectives, provide information for intervention and lesson planning, as well as monitor progress over time.

Reading Progress Tests

The *Reading Progress Tests (RPT0 to RPT6)* is a test of pre-reading and early reading skills in the first six years of school. It consists of a Baseline Literacy test and six forms of varying difficulty. Test results allow for progressive testing and the monitoring of reading achievement throughout the early years of school.

What has been done?

- The seven *Reading Progress Tests (RPT)* have been calibrated onto the *Progressive Achievement Tests in Reading Comprehension (PAT-RC)* scale. This allows for progressive testing of reading from Prep to Year 9, using *RPT* tests in the early years of school and moving on to the *PAT-RC* tests for later years.
- Norms for Prep, Year 1 and Year 2 have been added to the norms for Years 3 to 9 on the *PAT-RC* scale with data from the *RPT* Australian norming study.
- The descriptions of reading levels on the *PAT-RC* scale has been extended downwards with information from the *RPT* items to cover the first few years of school.
- Graphical and tabular reports have been prepared for each of the seven *RPT* tests.
- The difficulties of the four *PAT-RC* tests and the seven *RPT* tests have been shown graphically in the same figure. This allows teachers to choose appropriate tests from either the *RPT* or *PAT-RC* tests based on their appropriate difficulty levels.

Research Methodology

A reading measurement scale was developed in an ACER research project (Rowe et. al. 2006) in order to show growth between March and September 2005 for students in years 1 to 9. The *PAT-RC* scale was extended to lower levels than those covered by the four published tests (*PAT-R*, 2001) to provide a suitable reading continuum. In addition items from the *RPT* reading tests, items from *NZCER PAT-R*, items from statewide testing in WA and NSW, and new items developed at ACER were calibrated onto this scale. A total of 19 tests were prepared and administered as pre- and post-tests, ensuring that no student attempted the same test twice.

Equating of the items that were not already calibrated onto the *PAT-RC* scale was achieved through common items in some tests and through administration of two tests to the same students. The *RPT* tests were administered as whole tests except for *RPT0* from which the spelling items were excluded.

The analysis of the data allowed all of these items (681) to be calibrated onto the same scale. Not only were the items in the seven *RPT* tests located for the first time on the same measurement scale but they were calibrated on the scale of the *PAT-RC* items, allowing results on *RPT* tests to be compared with results on the *PAT-RC* tests.

Score equivalence tables were obtained for the *RPT* tests, allowing *RPT* test scores to be transformed into scale scores in *patc* units.

Equating information from the research project was used in a re-analysis of the *RPT* data from the Australian norming carried out in 1999. In this way it was possible to calibrate the spelling items of *RPT0* on the *PAT-RC* scale and to obtain distributions of achievement on the scale for year levels from Prep to Year 6. The *RPT* item locations displayed on the scale are those from the Australian norming of the *RPT* tests.

1. Student achievement by year level

Figure 12 on page 50 of the *PAT-R* manual has been revised with the addition of norms for Prep, Year 1 and Year 2 according to the *RPT* norming data collected in 1999 (De Lemos, 2000). The norming methodology described on pages 50 to 54 of the *PAT-R* manual has been used to obtain distributions of scale scores for norming samples in these three year levels after equating the *RPT* tests on the *PAT-RC* scale.

The availability of ability distributions for Years 3, 4, 5 and 6 for *RPT* norming samples as well as for *PAT-RC* norming samples validates not only the results of the equating but also the comparability of these two norming samples. In fact, the mean abilities for *RPT* and *PAT-RC* norming samples for these four year levels were the same, having accounted for sampling error. Also, the data from the research project were compared with the *RPT* and *PAT-RC* data and a small correction was necessary for the final norms on the *PAT-RC* scale for Prep, Year 1 and Year 2.

Figure 1 shows student achievement from Prep to Year 9 while Figure 2 shows achievement levels from Prep to Year 7, which are the reference year levels for norming the *RPT* tests on the *PAT-RC* scale.

The final results on growth in reading skills on the *PAT-RC* scale are consistent with findings in other research projects (e.g. Meiers et. al. 2006). It can be observed that the rate of growth in Prep, Year 1 and Year 2 is greater than that in Years 3 to 6. A small growth occurs in Year 7 due to the transition from primary to secondary school*. The rate of growth in Years 8 and 9 is smaller than in Years 3 to 6.

* See, for example, Kelly, H. (1994) *The Transition from primary to secondary school*. Newsletter No.7, July. Melbourne: Board of Studies.

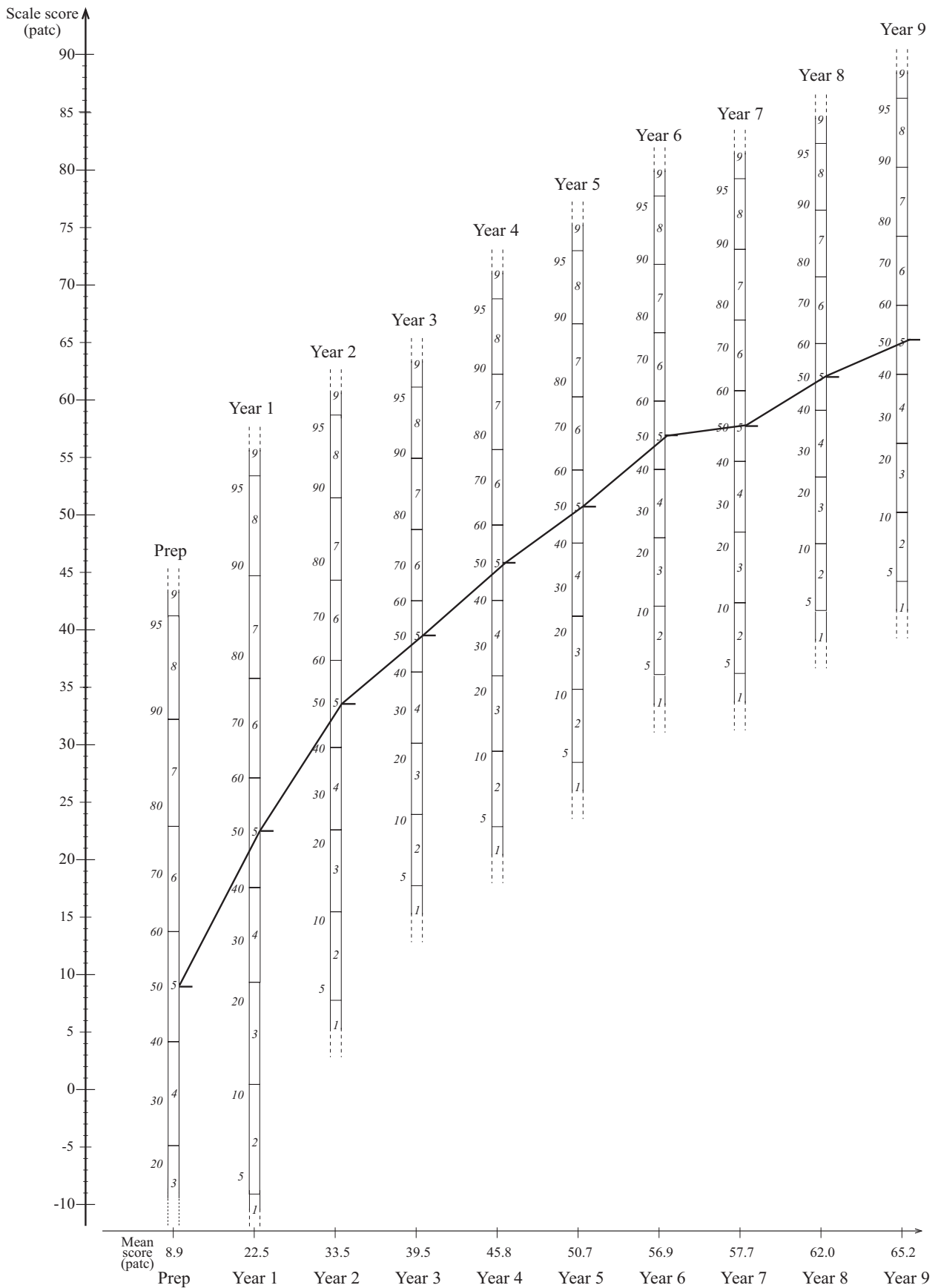


Figure 1: Student achievement on the PAT-RC scale from Prep to Year 9

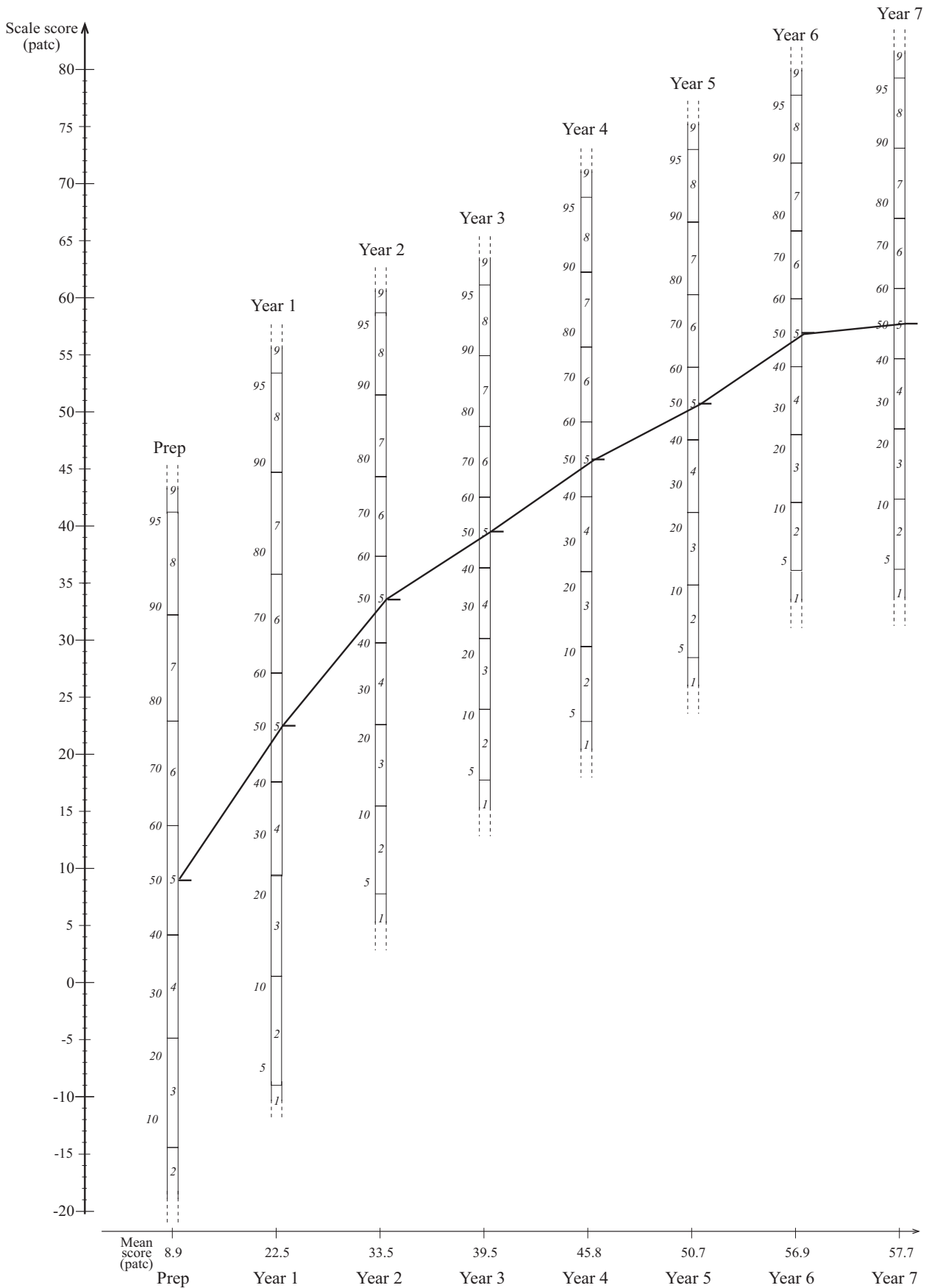


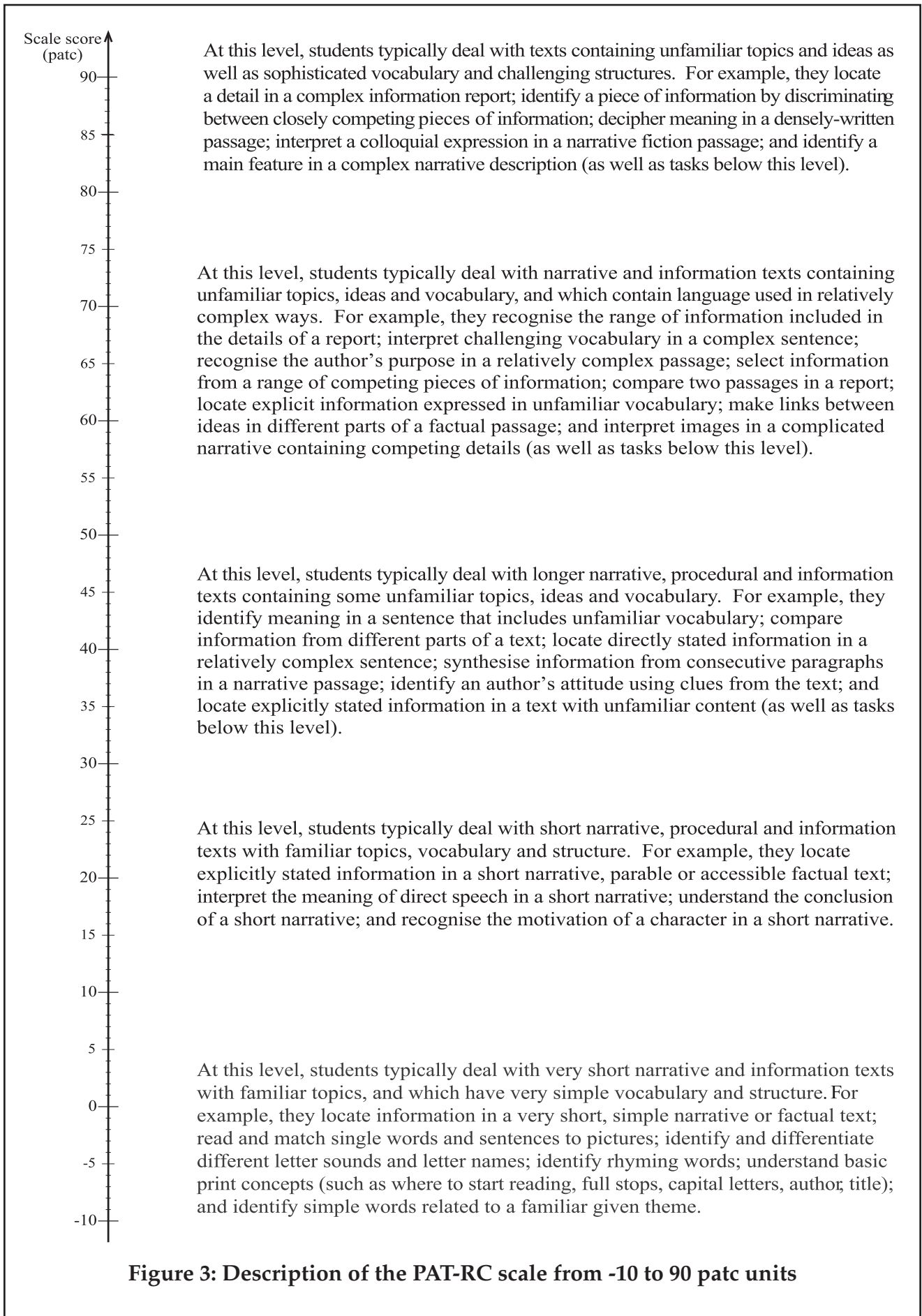
Figure 2: Student achievement on the PAT-RC scale from Prep to Year 7

2. Description of the PAT-RC scale

The availability of items on the lower end of the *PAT-RC* scale allowed an additional region of the scale to be described.

Figure 3 shows the description of five regions of the *PAT-RC* scale, with a new description based on *RPT* items at the bottom of the scale in addition to the four existing *PAT-RC* descriptions.

Figure 4 shows the description of four parts of the scale, the part used to display the *RPT* items and scale scores obtained with *RPT* tests.



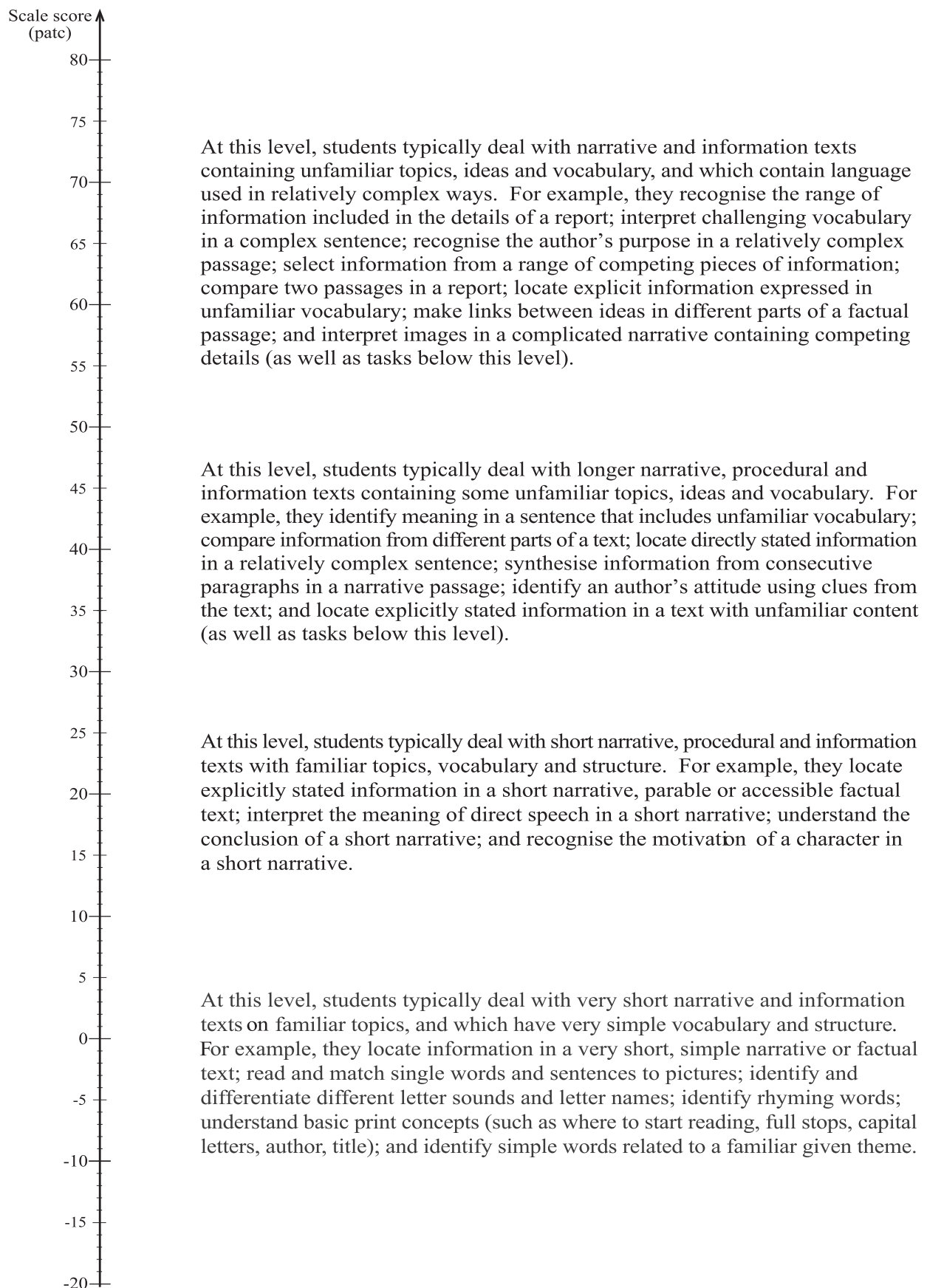


Figure 4: Description of the PAT-RC scale from -20 to 80 patc units

3. Norm tables

Norm tables, as shown and described in the *PAT-R* Manual on pages 52 to 55 and 60 to 63, have been prepared for the seven *RPT* tests.

Two reference years for norming each test have been shown in addition to the prescribed year level, except for *RPT0* for which only Prep and Year 1 have been shown.

Norming data for Years 3 to 7 have been provided by the norming of *PAT-R* in the year 2000, and for Prep, Year 1 and Year 2 by the 1999 *RPT* Australian norming study (De Lemos, 2000). *RPT* norming data for Years 3 to 6 have been compared with the *PAT-R* norming data to validate the location of the *RPT* and *PAT* norms on the same scale. The norming data from the Learning Difficulties project have also been used to validate norms from Year 1 to Year 9 on the *PAT-RC* scale.

Comparison of results among *RPT* tests and between *PAT-RC* tests should be based on scale scores in patc units. Test scores can be transformed into scale scores using the score equivalence table provided for each test in the Tabular reports. This allows for monitoring of a student's progress from year to year on the same scale. A given difference in scale scores anywhere on the scale corresponds to the same amount of change in reading comprehension because scale scores are measures on an interval scale. Further, as errors have been reported for scale scores, it is possible to test whether the difference between a student's achievement on the scale as measured on two occasions, with the same or different tests, is statistically significant.

Tabular Report for RPT0

Test score (number correct)	Scale score (patc)	Error (patc)	Percentile rank and stanine			
			Prep		Year 1	
			%ile rank	stanine	%ile rank	stanine
40	76.1		99		99	
39	61.7	12.0	99	9	98	9
38	50.3	9.8	98		93	8
37	41.9	8.6	96	8	85	7
36	35.4	7.5	91		76	6
35	30.4	6.7	87	7	66	
34	26.4	6.0	82		58	5
33	23.0	5.6	77	6	51	
32	20.1	5.2	72		44	4
31	17.6	4.9	67		39	
30	15.4	4.6	63		34	3
29	13.3	4.4	59	5	30	
28	11.4	4.3	55		26	2
27	9.6	4.2	51		23	
26	7.9	4.1	47		20	1
25	6.3	4.0	44		18	
24	4.8	3.9	41		16	
23	3.3	3.8	38	4	14	
22	1.8	3.8	35		12	
21	0.4	3.7	32		11	
20	-1.0	3.7	30		9	
19	-2.4	3.7	27		8	
18	-3.7	3.7	25		7	
17	-5.1	3.7	23		6	
16	-6.5	3.7	20		5	
15	-7.9	3.7	18		4	
14	-9.3	3.8	16	3	3	
13	-10.7	3.8	15		3	
12	-12.2	3.9	13		2	
11	-13.7	3.9	11		2	
10	-15.3	4.0	10		1	
9	-17.0	4.2	8	2	1	
8	-18.8	4.3	7		1	
7	-20.7	4.5	5		1	
6	-22.9	4.8	4		1	
5	-25.3	5.1	3		1	
4	-28.1	5.5	2		1	
3	-31.5	6.2	1	1	1	
2	-36.1	7.5	1		1	
1	-43.6	10.3	1		1	
0	-54.0		1		1	

Tabular Report for RPT1

Test score (number correct)	Scale score (patc)	Error (patc)	Percentile rank and stanine					
			Prep		Year 1		Year 2	
			%ile rank	stanine	%ile rank	stanine	%ile rank	stanine
32	78.4		99	9	99	9	99	9
31	67.1	10.7	99		99		98	
30	58.8	7.9	99		97		96	
29	53.5	6.7	99		96	8	91	8
28	49.5	6.0	98		93		86	
27	46.2	5.5	97	90	8	80	7	
26	43.3	5.2	96	87		7		74
25	40.8	4.9	95	84	69			
24	38.5	4.7	94	81	63			
23	36.4	4.5	92	8	77	6	57	5
22	34.4	4.4	91		74		52	
21	32.5	4.3	89		71		47	
20	30.7	4.2	87		67	6	42	4
19	29.0	4.1	85		64		37	
18	27.3	4.1	83	7	60	5	33	4
17	25.6	4.1	81		56		29	
16	24.0	4.0	78		53		25	
15	22.4	4.1	76	6	5	22	3	
14	20.7	4.1	73			49		19
13	19.0	4.1	70			46		16
12	17.3	4.2	67		42	4	13	2
11	15.6	4.2	63		38		11	
10	13.8	4.3	60	5	4	9	1	
9	11.8	4.5	56			35		6
8	9.8	4.6	51			31		5
7	7.6	4.8	47		5	3	3	1
6	5.1	5.1	42				27	
5	2.3	5.5	36	4	3	1	1	
4	-0.9	6.0	30			13		1
3	-4.9	6.7	23		9	2		1
2	-10.3	8.0	15	6	1			
1	-18.8	10.8	7	3	1	1		
0	-30.4		1	2		1		
				1				

Tabular Report for RPT2

Test score (number correct)	Scale score (patc)	Error (patc)	Percentile rank and stanine					
			Year 1		Year 2		Year 3	
			%ile rank	stanine	%ile rank	stanine	%ile rank	stanine
38	84.2		99		99		99	
37	73.9	10.3	99		99		99	9
36	66.4	7.5	99		98		98	
35	61.7	6.3	98		97		96	
34	58.2	5.6	97		95		93	8
33	55.4	5.1	96		93		89	
32	52.9	4.8	95		90		85	7
31	50.8	4.5	94		88		81	
30	48.9	4.3	92		85		77	
29	47.1	4.1	91		82		72	
28	45.4	4.0	89		79		68	6
27	43.8	3.9	88		75		63	
26	42.3	3.8	86		72		58	
25	40.9	3.8	84		69		54	
24	39.5	3.7	82		65		49	5
23	38.1	3.7	80		62		45	
22	36.8	3.6	78		58		41	
21	35.5	3.6	76		55		37	
20	34.2	3.6	74		51		33	4
19	32.9	3.6	71		48		29	
18	31.6	3.6	69		44		26	
17	30.3	3.6	66		41		22	
16	28.9	3.7	63		37		19	
15	27.6	3.7	61		34		16	3
14	26.2	3.8	58		30		14	
13	24.8	3.8	55		27		11	
12	23.3	3.9	51		24		9	
11	21.7	4.0	48		21		7	2
10	20.1	4.1	44		18		5	
9	18.3	4.3	40		15		4	
8	16.4	4.4	36		12		3	
7	14.4	4.7	32		9		2	
6	12.1	5.0	28		7		1	
5	9.4	5.3	23		5		1	
4	6.3	5.9	18		3		1	1
3	2.4	6.7	13		1		1	
2	-2.9	8.0	7	2	1	1	1	
1	-11.3	10.8	3		1		1	
0	-22.8		1	1	1		1	

Tabular Report for RPT3

Test score (number correct)	Scale score (patc)	Error (patc)	Percentile rank and stanine						
			Year 2		Year 3		Year 4		
			%ile rank	stanine	%ile rank	stanine	%ile rank	stanine	
41	94.6		99		99		99		
40	83.5	10.6	99	9	99	9	99	9	
39	75.4	7.8	99		99		98		
38	70.3	6.6	99		99		96	8	
37	66.4	5.9	98		98		94		
36	63.3	5.4	97		97		90		
35	60.6	5.0	96	8	95	8	87	7	
34	58.3	4.7	95		93		83		
33	56.2	4.5	93		91		78		
32	54.3	4.3	92		88	74	6		
31	52.5	4.2	90		84	69			
30	50.8	4.1	88	81	64				
29	49.2	4.0	85	7	78	7	60	6	
28	47.6	3.9	83		74		55		
27	46.2	3.8	80		70		51	5	
26	44.7	3.8	77		66	46			
25	43.3	3.7	74		61	42			
24	41.9	3.7	71	6	57	5	38	4	
23	40.6	3.7	68		53		34		
22	39.2	3.7	65		48		30		
21	37.9	3.7	61		44	27			
20	36.5	3.7	58		40	23			
19	35.2	3.7	54	5	36	4	20	3	
18	33.8	3.7	50		32		18		
17	32.4	3.7	47		28		15		
16	31.0	3.8	43		24	12			
15	29.6	3.8	39		21	10	3	10	2
14	28.1	3.9	35	17	8				
13	26.6	4.0	31	14	7	2		7	
12	25.0	4.0	28	11	5				
11	23.3	4.1	24	9	4		2	4	1
10	21.5	4.3	19	7	3				
9	19.7	4.4	17	3	5	2		2	1
8	17.7	4.6	14		3		1		
7	15.5	4.8	11		2		1		
6	13.1	5.1	8		2	1	1	1	1
5	10.4	5.4	5			1		1	
4	7.2	5.9	3	1		1		1	1
3	3.3	6.6	1		1	1			
2	-1.8	7.8	1		1	1			
1	-10.0	10.6	1		1	1			
0	-21.3		1		1	1			

Tabular Report for RPT4

Test score (number correct)	Scale score (patc)	Error (patc)	Percentile rank and stanine							
			Year 3		Year 4		Year 5			
			%ile rank	stanine	%ile rank	stanine	%ile rank	stanine		
45	97.7		99	9	99	9	99	9		
44	87.5	10.2	99		99		99			
43	80.1	7.4	99		99		98			
42	75.5	6.2	99		98		97			
41	72.2	5.4	99		97		95			
40	69.5	4.9	99		96	93	8			
39	67.3	4.6	98		95	90				
38	65.3	4.3	98		93	87	7			
37	63.5	4.1	97		91	84				
36	61.9	3.9	96	8	89	7	81	6		
35	60.4	3.8	95		86		77			
34	59.0	3.7	94		84		74			
33	57.6	3.6	92		81	70				
32	56.4	3.5	91		79	67				
31	55.2	3.4	89		7	76	6		63	5
30	54.0	3.4	87	73		60				
29	52.9	3.3	85	70		56				
28	51.8	3.3	83	67		53				
27	50.7	3.3	81	64		50				
26	49.7	3.2	79	61		46				
25	48.6	3.2	76	58		43				
24	47.6	3.2	74	6	55	5	40	4		
23	46.6	3.2	71		52		37			
22	45.5	3.2	68		49		34			
21	44.5	3.2	65		46	31				
20	43.5	3.2	62		43	28				
19	42.5	3.2	59		40	25				
18	41.4	3.3	55	5	36	4	23	3		
17	40.4	3.3	52		34		20			
16	39.3	3.3	49		31		18			
15	38.1	3.4	45		27	16				
14	37.0	3.4	41		25	14				
13	35.8	3.5	38	4	22	3	12	2		
12	34.5	3.6	34		19		10			
11	33.2	3.7	30		16		8			
10	31.8	3.8	26		14		6			
9	30.3	3.9	22	3	11	2	5	1		
8	28.7	4.1	19		9		4			
7	27.0	4.3	15		7		3			
6	25.0	4.6	11	2	5	1	2	1		
5	22.7	4.9	8		3		1			
4	20.1	5.4	5		2		1			
3	16.8	6.1	3		1		1		1	1
2	12.3	7.4	1				1			1
1	4.9	10.2	1	1		1				
0	-5.4		1		1		1			

Tabular Report for RPT5

Test score (number correct)	Scale score (patc)	Error (patc)	Percentile rank and stanine					
			Year 4		Year 5		Year 6	
			%ile rank	stanine	%ile rank	stanine	%ile rank	stanine
50	101.3		99		99		99	
49	91.1	10.3	99		99		99	9
48	83.7	7.4	99		99	9	98	
47	79.1	6.2	99	9	98		96	
46	75.7	5.5	98		97		94	8
45	73.0	5.0	98		96		91	
44	70.7	4.6	97		94	8	87	
43	68.7	4.4	96		92		83	7
42	66.9	4.1	94	8	89		79	
41	65.2	4.0	93		87		75	
40	63.7	3.8	91		84	7	71	6
39	62.3	3.7	89		81		67	
38	61.0	3.6	87		79		63	
37	59.7	3.5	85	7	76		59	
36	58.5	3.4	83		73		55	
35	57.4	3.4	81		70	6	51	5
34	56.2	3.3	78		66		47	
33	55.2	3.3	76		63		44	
32	54.1	3.2	73		60		40	
31	53.1	3.2	71		57		37	
30	52.0	3.2	68	6	54		34	
29	51.0	3.2	65		50	5	31	4
28	50.1	3.1	62		48		28	
27	49.1	3.1	60		44		25	
26	48.1	3.1	57		41		23	
25	47.1	3.1	54		38		19	
24	46.2	3.1	51	5	36		18	
23	45.2	3.1	48		33	4	16	3
22	44.2	3.1	45		30		14	
21	43.2	3.2	42		27		12	
20	42.2	3.2	39		25		10	
19	41.2	3.2	36		22		9	
18	40.1	3.3	33	4	19		7	2
17	39.1	3.3	30		18		6	
16	38.0	3.3	27		15	3	5	
15	36.8	3.4	24		13		4	
14	35.6	3.5	21		11		3	
13	34.4	3.5	19		9		2	
12	33.1	3.6	16	3	8		2	
11	31.8	3.7	14		6	2	1	
10	30.3	3.9	11		5		1	
9	28.8	4.0	9		4		1	
8	27.1	4.2	7	2	3		1	1
7	25.2	4.4	5		2		1	
6	23.1	4.7	4		1		1	
5	20.8	5.0	2		1	1	1	
4	18.0	5.5	1		1		1	
3	14.5	6.3	1	1	1		1	
2	9.8	7.5	1		1		1	
1	2.3	10.3	1		1		1	
0	-8.0		1		1		1	

Tabular Report for RPT6

Test score (number correct)	Scale score (patc)	Error (patc)	Percentile rank and stanine					
			Year 5		Year 6		Year 7	
			%ile rank	stanine	%ile rank	stanine	%ile rank	stanine
54	100.2		99		99		99	
53	90.0	10.2	99		99	9	99	9
52	82.7	7.3	99		98		98	
51	78.3	6.1	98		96		95	
50	75.0	5.4	97		93	8	92	8
49	72.4	4.9	96		90		88	
48	70.1	4.5	93		86		84	
47	68.2	4.3	91		82	7	80	7
46	66.5	4.1	89		79		76	
45	64.9	3.9	86		74		72	
44	63.4	3.8	84		70		68	
43	62.1	3.6	81		66	6	64	6
42	60.8	3.5	78		62		60	
41	59.6	3.4	75		59		56	
40	58.4	3.4	72		55		52	
39	57.3	3.3	69		51		48	
38	56.2	3.3	66		47	5	45	5
37	55.2	3.2	63		44		41	
36	54.1	3.2	60		40		38	
35	53.1	3.1	57		37		35	
34	52.2	3.1	54		34		32	
33	51.2	3.1	51		31		29	
32	50.2	3.1	48		28	4	26	4
31	49.3	3.1	45		26		24	
30	48.4	3.1	42		23		22	
29	47.4	3.0	39		21		19	
28	46.5	3.0	37		19		17	
27	45.6	3.0	34		17		15	
26	44.6	3.1	31		15	3	14	3
25	43.7	3.1	29		13		12	
24	42.8	3.1	26		11		10	
23	41.8	3.1	24		10		9	
22	40.9	3.1	21		8		8	
21	39.9	3.1	19		7	2	7	2
20	38.9	3.2	17		6		6	
19	37.9	3.2	15		5		5	
18	36.8	3.2	13		4		4	
17	35.8	3.3	12		3		3	
16	34.7	3.3	10		3		2	
15	33.5	3.4	8		2		2	
14	32.4	3.5	7		1		1	
13	31.1	3.5	6		1		1	
12	29.8	3.6	4		1		1	
11	28.5	3.7	4		1		1	
10	27.0	3.9	3		1		1	
9	25.5	4.0	2		1		1	
8	23.8	4.2	1		1	1	1	1
7	22.0	4.4	1		1		1	
6	20.0	4.6	1		1		1	
5	17.7	5.0	1	1	1		1	
4	14.9	5.5	1		1		1	
3	11.6	6.2	1		1		1	
2	7.0	7.4	1		1		1	
1	-0.4	10.2	1		1		1	
0	-10.6		1		1		1	

4. Diagnostic reports

Student diagnostic reports as described on pages 20 and 21 and shown on pages 64 to 67 of the *PAT-R* Manual (2001) have been prepared for the seven *RPT* tests.

The *PAT-RC* scale shown in the manual extends from 5 to 105 patm units. The calibration of the relatively easier *RPT* tests on the same scale requires an extension of this scale below the origin that was selected in 2001. It is necessary to show the scale from -20 to 80 patc units in order to display the location of the *RPT* items and the transformation of the *RPT* test scores to scale scores.

The location of the individual items on the scale shows the item difficulty. Identifying items which the student got correct or wrong provides diagnostic information about the student's reading abilities. Marking the student's scale score on the year bands also provide an idea of where the student is compared to the norm group of available year levels.

Reading Progress Test Diagnostic Report RPT 0

Student name:

Student year level:

Date of testing:

Test raw score:

Scale score (patc): ±

Year level of reference group:

Percentile rank: Stanine:

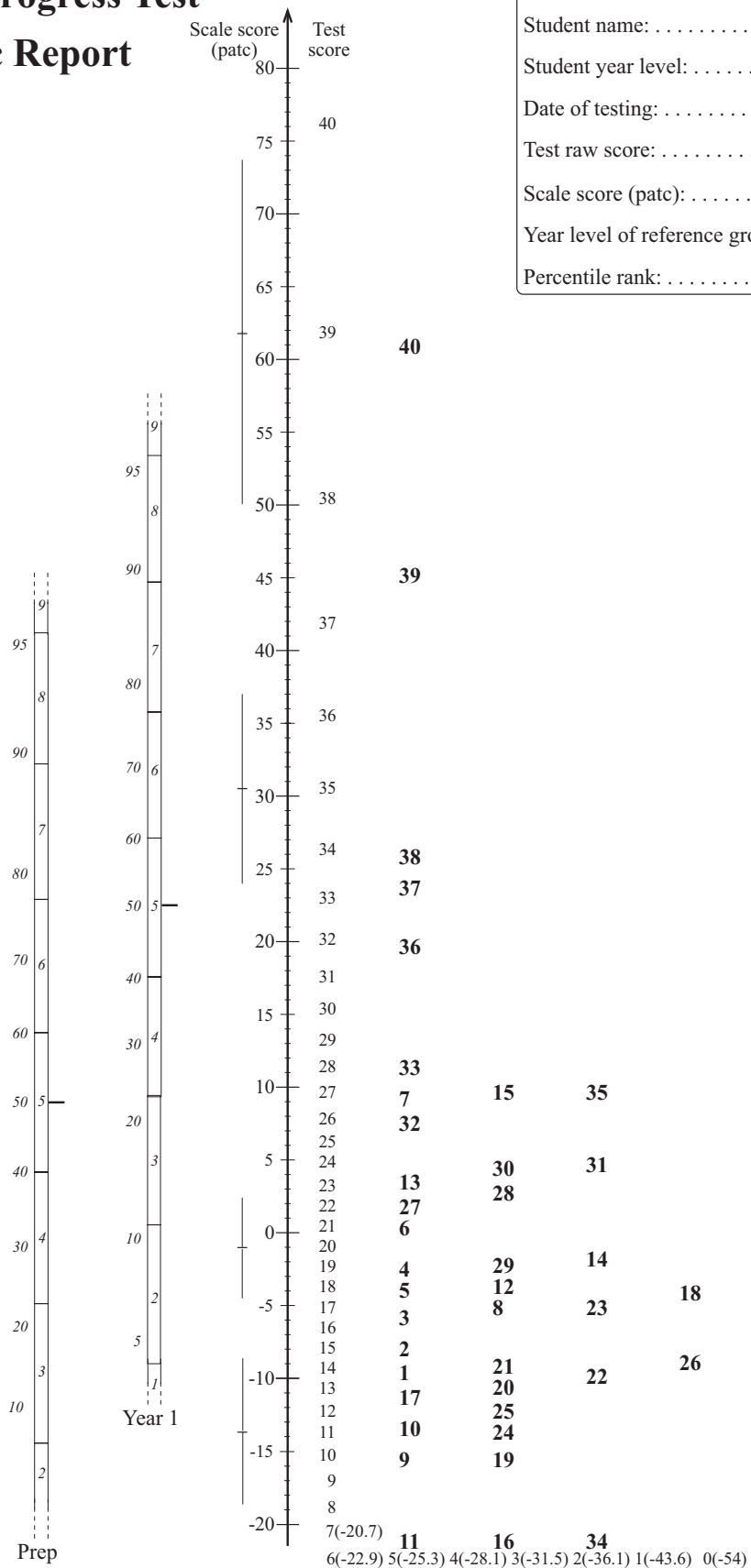


Figure 5: Diagnostic report for RPT0

Reading Progress Test Diagnostic Report RPT 1

Student name:

Student year level:

Date of testing:

Test raw score:

Scale score (patc): ±

Year level of reference group:

Percentile rank: Stanine:

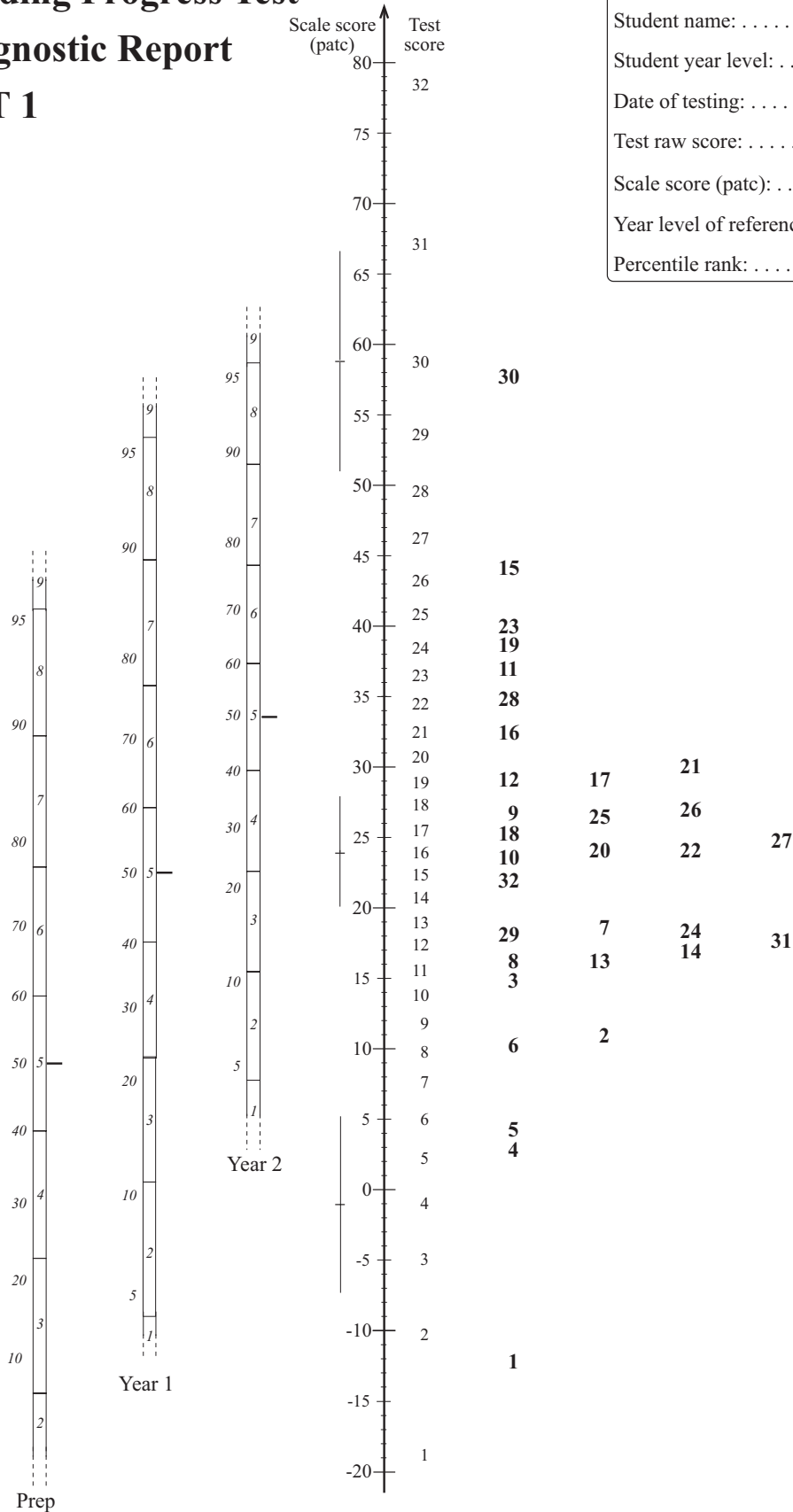


Figure 6: Diagnostic report for RPT1

Reading Progress Test Diagnostic Report RPT 2

Student name:

Student year level:

Date of testing:

Test raw score:

Scale score (patc): ±

Year level of reference group:

Percentile rank: Stanine:

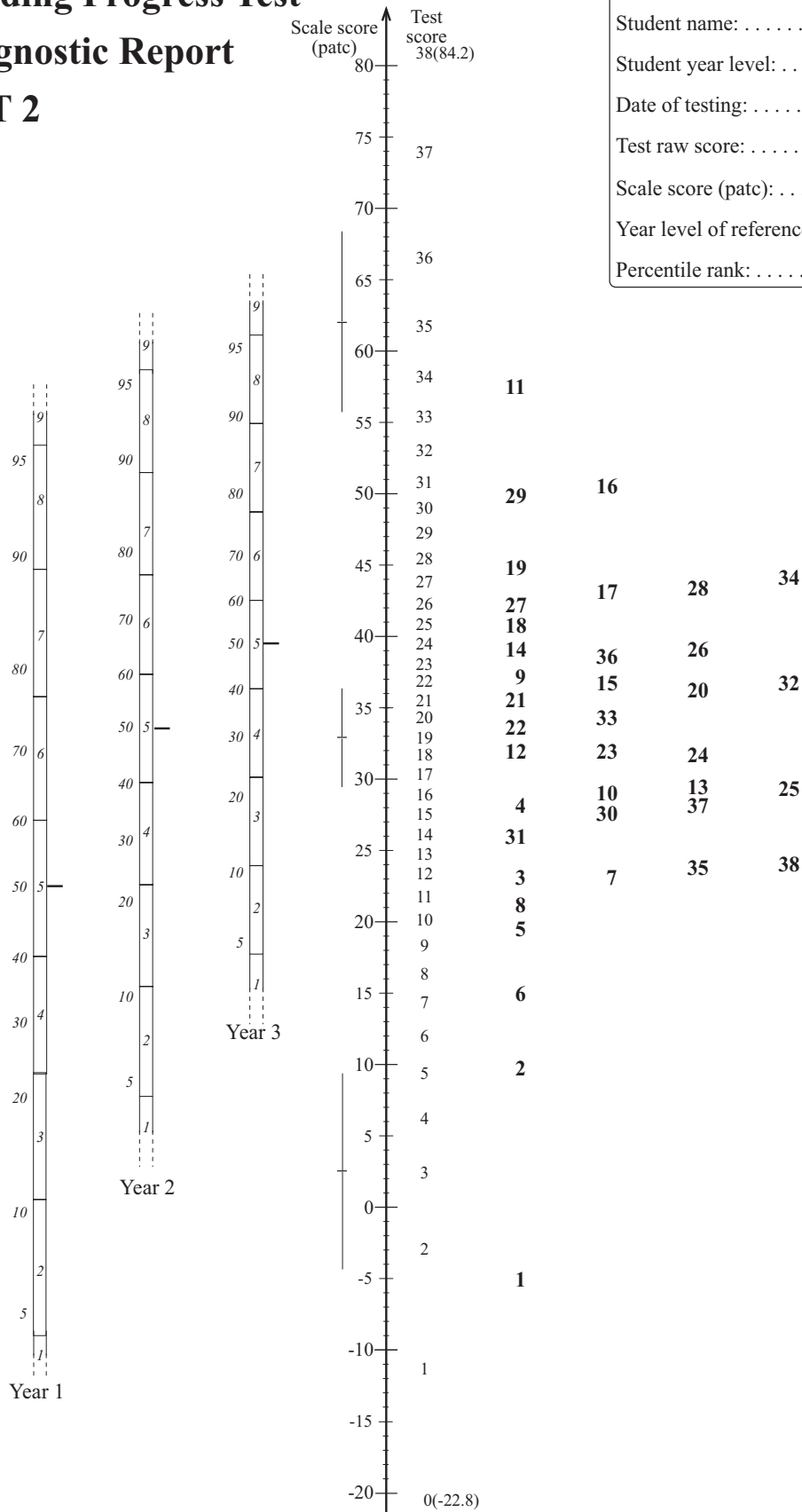
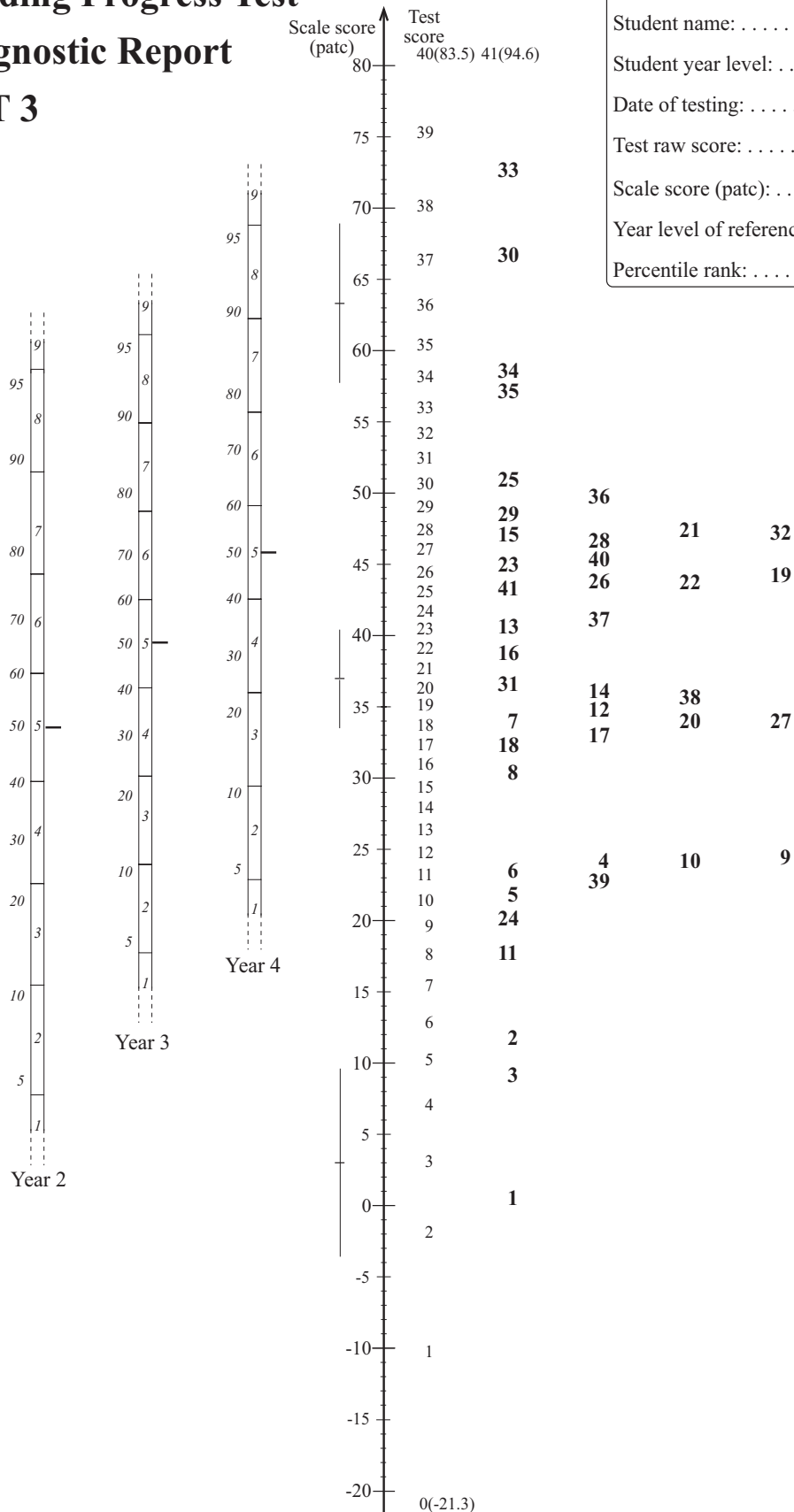


Figure 7: Diagnostic report for RPT2

Reading Progress Test Diagnostic Report RPT 3



Student name:

Student year level:

Date of testing:

Test raw score:

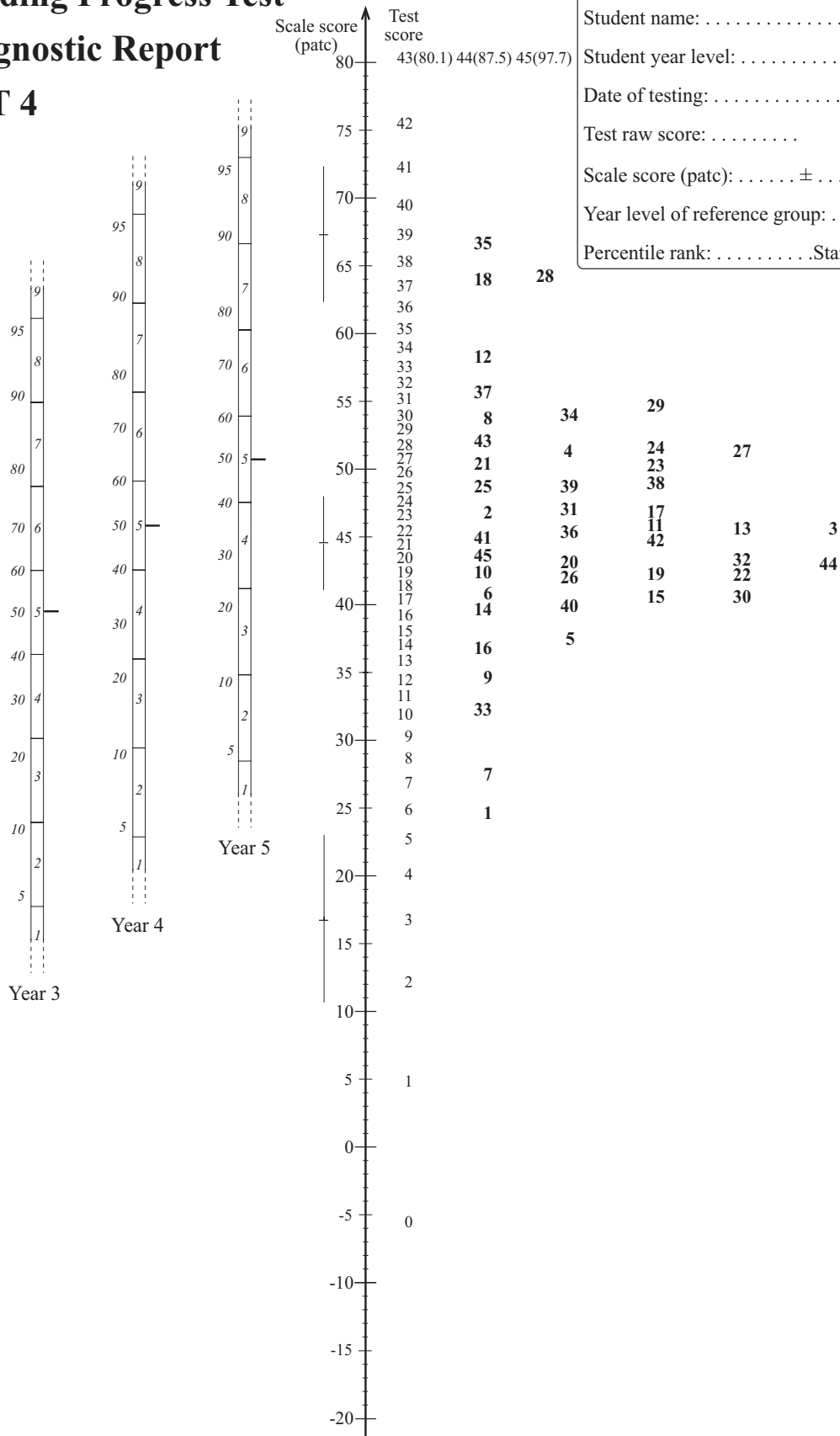
Scale score (pate): ±

Year level of reference group:

Percentile rank: Stanine:

Figure 8: Diagnostic report for RPT3

Reading Progress Test Diagnostic Report RPT 4



Student name:

Student year level:

Date of testing:

Test raw score:

Scale score (patc): ±

Year level of reference group:

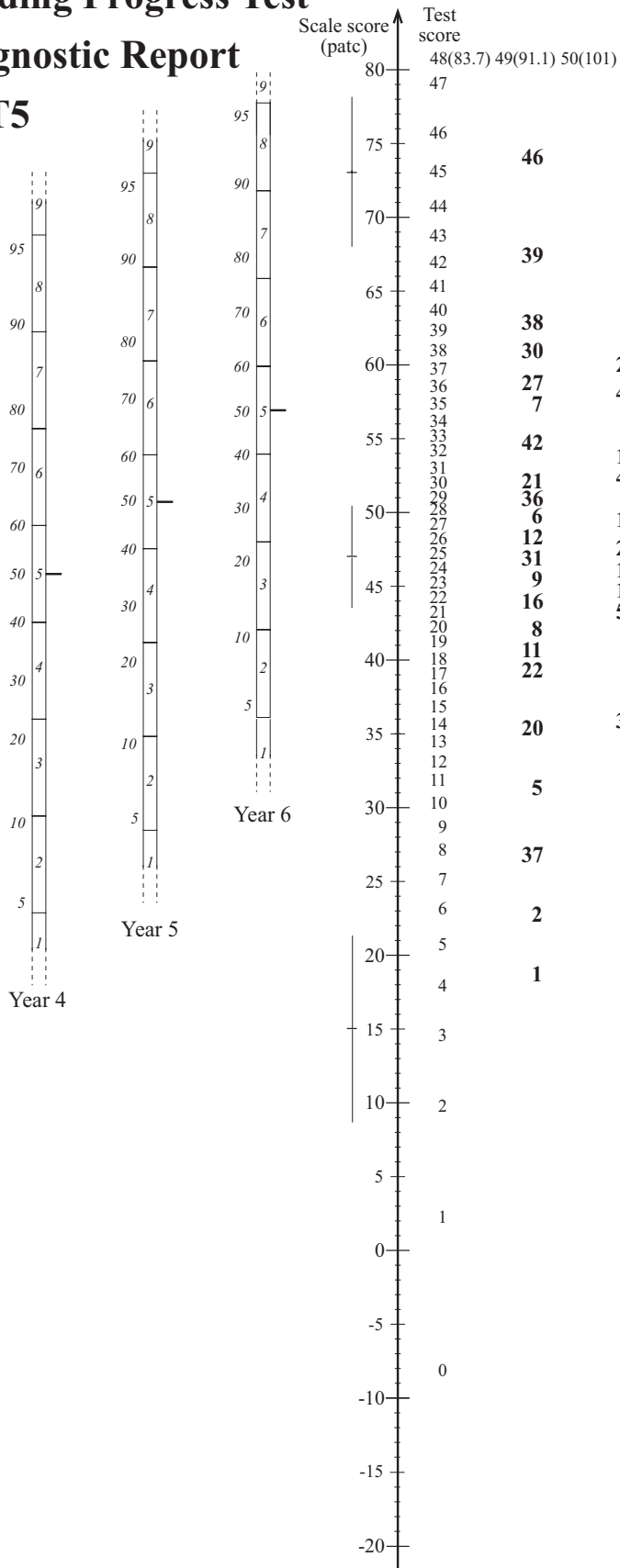
Percentile rank: Stanine:

Figure 9: Diagnostic report for RPT4

Reading Progress Test

Diagnostic Report

RPT5



Student name:

Student year level:

Date of testing:

Test raw score:

Scale score (pate): ±

Year level of reference group:

Percentile rank: Stanine:

24	45			
40	43			
14	26			
44				
15	41	35	49	
28	47			
18	19			
10	17	48	34	23
50	13	17	48	34
8				
11	4	25	29	33
22				
20	32			
5				
37	3			

Figure 10: Diagnostic report for RPT5

Reading Progress Test

Diagnostic Report

RPT 6

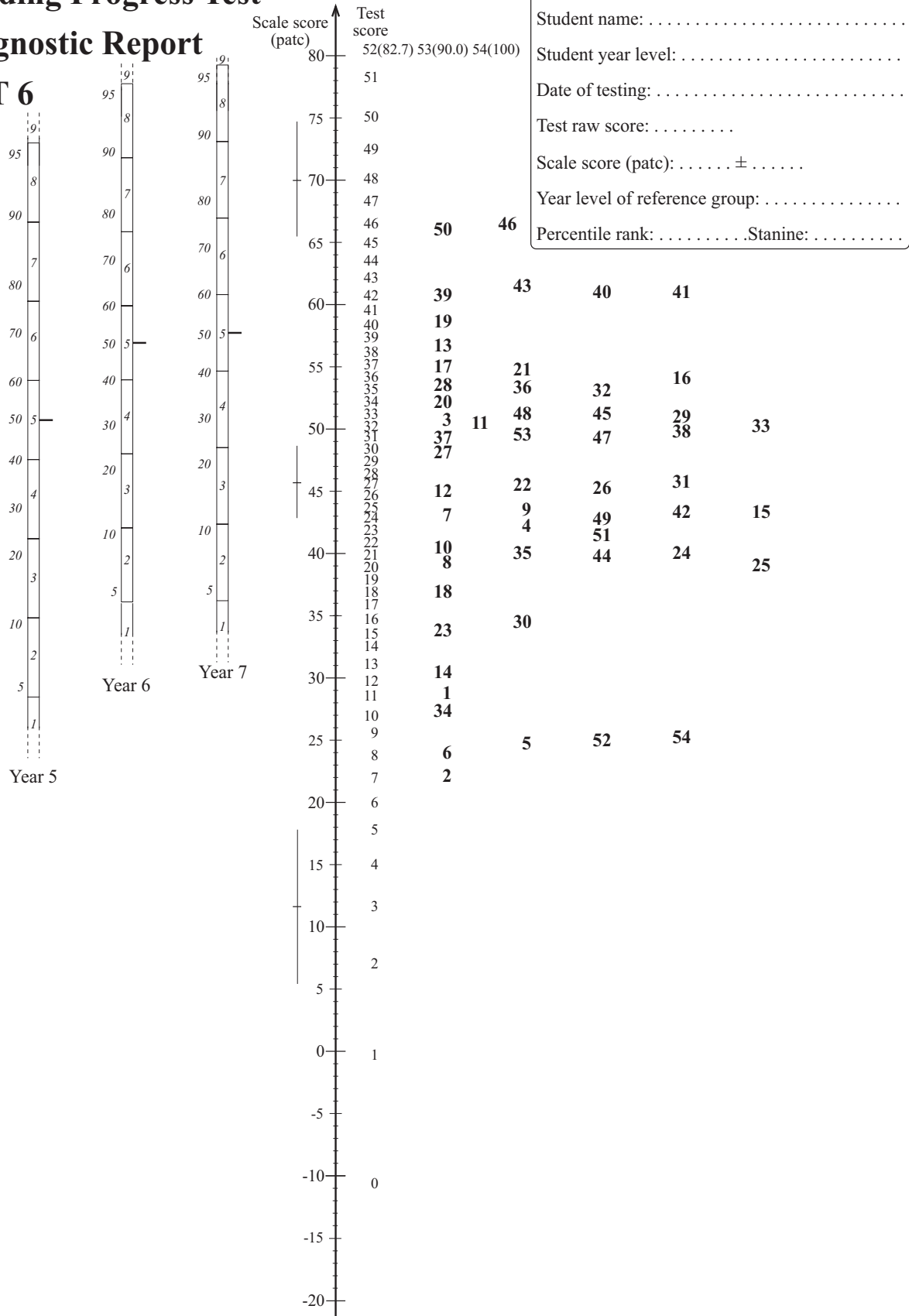


Figure 11: Diagnostic report for RPT6

5. Transformation of test scores (%) to scale scores and comparison of test difficulty

A comparison of the difficulty of the four *PAT-RC* tests and the seven *RPT* tests is available graphically in Figure 12. The test characteristic curve (TCC) for each test is shown in this figure. An explanation on how to interpret this figure is given on page 58 of the *PATMaths* Manual (Lindsey et. al. 2005).

The TCCs of the seven *RPT* tests are shown with thicker lines than those of the four *PAT-RC* tests. It can be observed that the TCCs for *RPT* tests 4, 5, and 6 are very similar, which means that these three tests are of similar difficulty, and slightly more difficult than *PAT 2*. *RPT0* is much easier than all of the other tests. *RPT2* is of about the same difficulty as *PAT 1*. *PAT 3* and *PAT 4* are more difficult than all of the other tests.

This is the first time the seven *RPT* tests have been calibrated onto a Rasch scale, which allows for a comparison of the difficulty levels of these tests. The difficulty of a test compared to other tests can be seen from the mean location of the items in a test and is independent of the ability level of the students who provided the data.

Figure 13 shows that a test score of 50% on *RPT0*, which is the easiest of the 11 tests, corresponds to an achievement of -1 patc (with an error of 3.7 patc) while a test score of 50% on the most difficult test, *PAT 4*, corresponds to a location of 65 patc (with an error of 3.2 patc). The difference between 65 and -1 patc can be used to indicate the relative difficulty of these two tests. Figure 13 also shows that to obtain an achievement of 30 patc on the scale a student would require a test score of 5% on *PAT 4* (the error for this test at 30 patc is 7.5 patc) and a test score of 88% on *RPT0* (the error for this test at 30 patc is 6.7 patc).

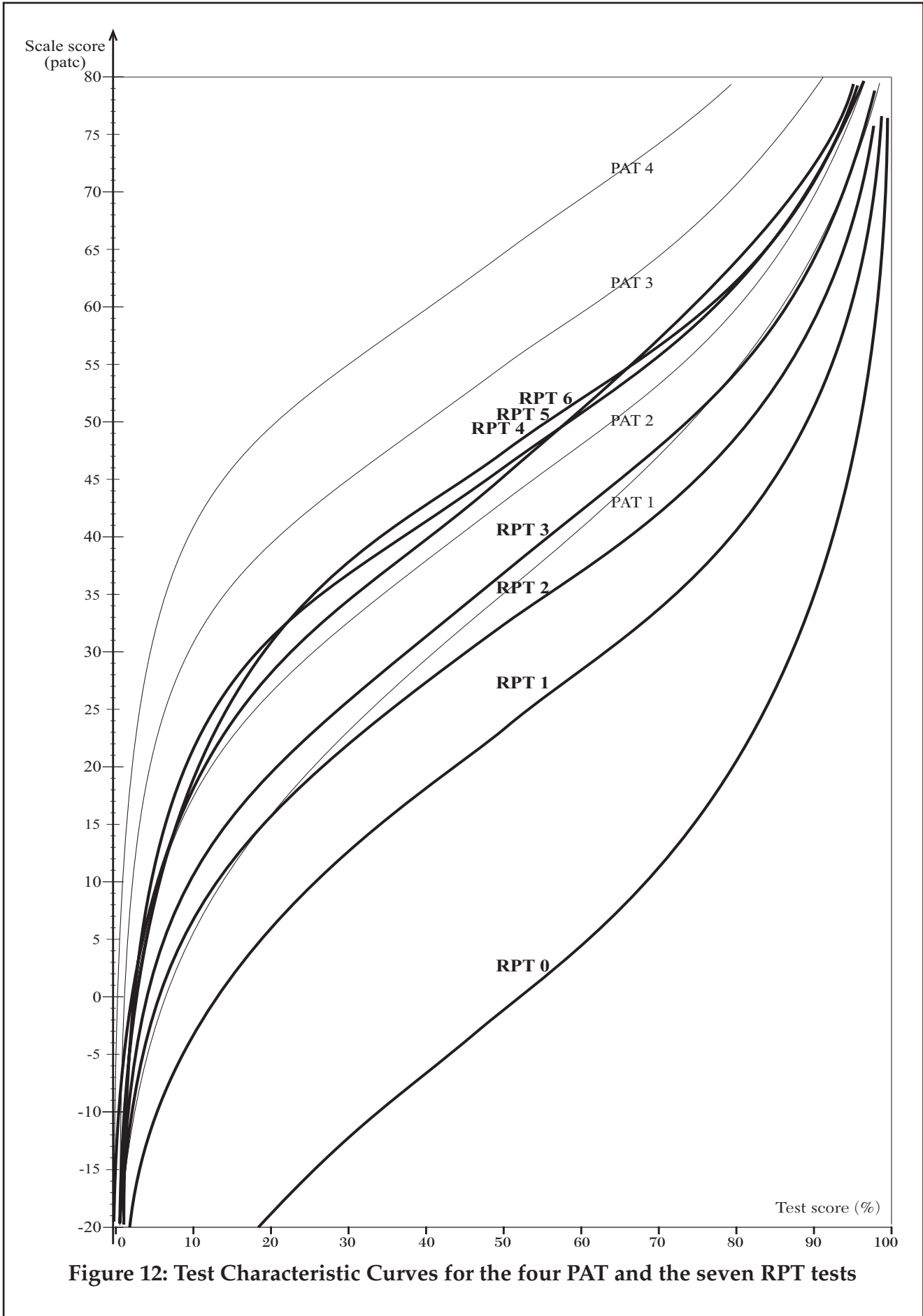


Figure 12: Test Characteristic Curves for the four PAT and the seven RPT tests

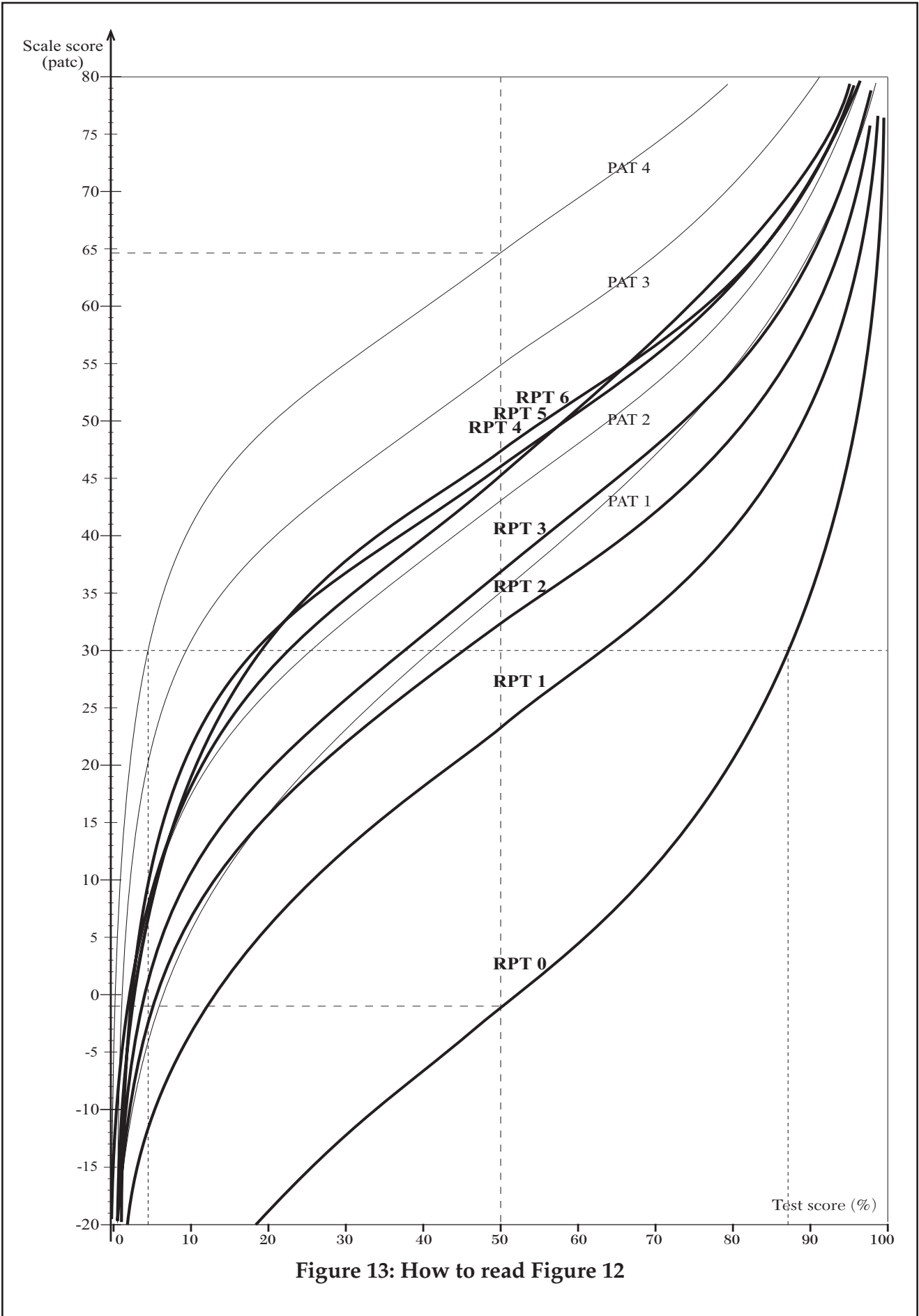


Figure 13: How to read Figure 12

6. RPT item locations and test difficulties

The relative difficulty of the seven *RPT* tests can be directly observed from the scale location of the items in each test. Figure 14 is a display of all *RPT* items on the *PAT-RC* scale according to their relative difficulty and the mean item difficulty for each test.

This figure confirms the observations about relative test difficulty based on the Test Characteristic Curves. *RPT0* items are located much lower on the scale than the items of all of other tests. *RPT2* items are located higher than *RPT1* items. *RPT3* items are located higher than *RPT2* items. Items in *RPT* tests 4, 5, and 6 are distributed along the same region of the scale and higher than *RPT3* items.

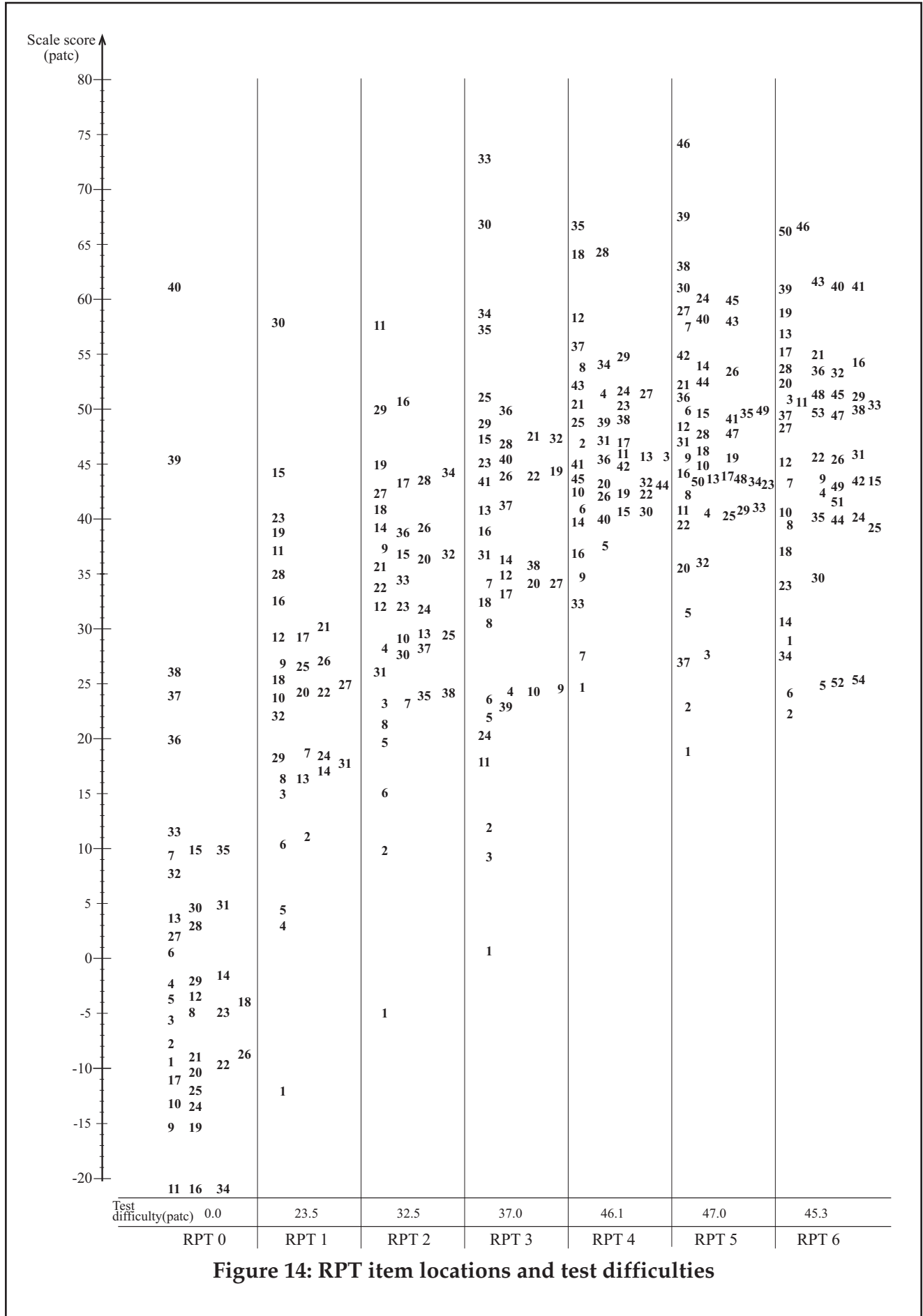


Figure 14: RPT item locations and test difficulties

References

1. *PAT-R Progressive Achievement Tests in Reading: Comprehension and Vocabulary Teacher Manual*, (2001), Australian Council for Educational Research, Camberwell, Australia.
2. De Lemos, M., (2000) *Reading Progress Test Stage 1 and Stage 2 Australian Norms Supplement*, Australian Council for Educational Research, Camberwell, Australia.
3. Rowe, K.J., Stephanou, A., & Urbach, D. (2006). *Effective Teaching and Learning Practices Initiative for Students with Learning Difficulties Report* to the Australian Government Department of Education, Science and Training, the Victorian Department of Education and Training, Catholic Education Office of Victoria, and the Association of Independent Schools of Victoria. Australian Council for Educational Research, Camberwell, Australia.
4. Lindsey, J., Stephanou, A., Urbach, D., & Sadler, A. (2005) *PATMaths Progressive Achievement Tests in Mathematics Third Edition Teacher Manual*. Australian Council for Educational Research, Camberwell, Australia.
5. Meiers, M., Khoo, S.T, Rowe, K.J., Stephanou, A., Anderson, P., & Nolan, K. (2006). *Growth in Literacy and Numeracy in the First Three Years of School*. ACER Research Monograph No. 31, Australian Council for Educational Research. Camberwell, Australia.