



Analysis of 2024 CAT test results

All Year 7 students complete Cognitive Abilities Tests (CAT) in September. These are used as baseline tests to help understand the ability of our students. This is then used to help set targets and to monitor progress. CAT tests measure Verbal, Quantitative, Non-Verbal and Spatial skills.

The four skills scores are combined to give the mean CAT Standard Aged Scores (SAS); a SAS comes from comparing a pupil's raw score with the national standardisation sample, taking chronological age into account. This shows how each pupil is performing compared to the national average for their age. The national average SAS is 100 and the Standard Deviation is 20.

The skills analysed include:

- **Verbal Reasoning:** Thinking with words
- **Non-verbal Reasoning:** Thinking with pictures and diagrams
- **Spatial Reasoning:** Thinking and drawing conclusions in three dimensions, needs for STEM subjects
- **Quantitative Reasoning:** Thinking with numbers

Summary:

- CAT results are less consistent than in previous years.
- 4 students have been recognised as Exceptionally Able based on being within the top 10% for both CAT and Entrance Test TWS scores.
- The majority of our 20 PPG students are in the lower third of the Entrance Test TWS and CAT scores. Only 9 of the 20 PPG students ranked better in the CAT test than in entrance test though any analysis here is limited due to shared ranking in the CAT tests.
- Only 2 of our PPG students ranked above position 50 for the entrance test or the CAT test
- 1 PPG student ranks as extremely able being in the top 10% for both tests.
- CAT and Entrance Test TWS results show a positive correlation; however, it is weaker than in previous years, there is very little correlation between Ranking in CAT and Entrance Test.
- Verbal, Quantitative and Non-Verbal continue to be our highest performing skills.
- SEN students are being monitored and are not outliers in either data set.
- In Year 7 Indian is the largest ethnicity with 38.6%, the next largest cohort is White (all) making up 30.7%.

Skills Analysis

The headline Mean SAS is lower than in previous years (see table below) with the greatest changes in Non-verbal and Spatial skills.

As we have observed in previous years the strongest skills are Verbal, Quantitative and Non-Verbal and a notable difference in the average attainment for Spatial awareness.

	Mean SAS	Verbal SAS	Quantitative SAS	Non-Verbal SAS	Spatial SAS
2018 (Y13)	126.1	131.2	126.1	127.7	119.0
2019 (Y12)	125.7	130.1	126.2	127.0	119.0
2020 (Y11)**	125.8	129.9	125.9	127.2	119.8
2021 (Y10)	125.7	130.1	125.4	127.5	119.0
2022 (Y9)	125.2	128.2	125.5	126.8	119.7
2023 (yr 8)	125.5	130.2	124.5	127.60	120.0
2024 (Yr 7)	124.58	129.59	125.70	124.68	117.93

**2020 was the first cohort of 180 students.

Analysis

Standard deviation

Year	S.D.
2017	5.44
2018	6.48
2019	6.59
2020	6.73
2021	7.41
2022	7.15
2023	7.43
2024	7.68

As shown in the table the standard deviation of this year's scores is 7.68 which continues the higher trend seen since 2021, indicating a greater spread in the data.

The spread of results are detailed in the following table, please note that the percentage of students achieving the highest band of results is comparable with the highest we have seen in recent years.

Mean score	2018	2019	2020	2021	2022	2023	2024
	(Y13)	(Y12)	(Y11)	(Y10)	(Y9)	(Y8)	(Y7)
130+	34	31	30	34	28	31	31
125-129	26	29	30	22	27	24	23
120-124	21	22	25	22	23	28	24
115-119	16	12	11	14	12	8	14
110-114	3	3	5	6	8	6	3
105-109	0	1	1	1	0	3	3
100-104	0	1	0	0	0	1	2
95-99	0	0	0	0	1	0	0
90-94	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0

The data above is given as a percentage of cohort rounded to the nearest whole percentage.

(National standardised score at 100, 1 standard deviation is ± 20)

Exceptionally Able

As a result of the CAT and Entrance Test TWS analysis 4 students have been identified as 'Exceptionally Able' as they have performed in the top 10% for both tests. This has been shared with the Year Leader and will form part of the TA analysis.

SEN Students

At present we have nine Year 7 SEN Students (SF or K code), these students are distributed throughout the cohort though with 6 of them are in the lower 40% for Entrance Test TWS scores, 3 of them are in the lower 40% for CAT.

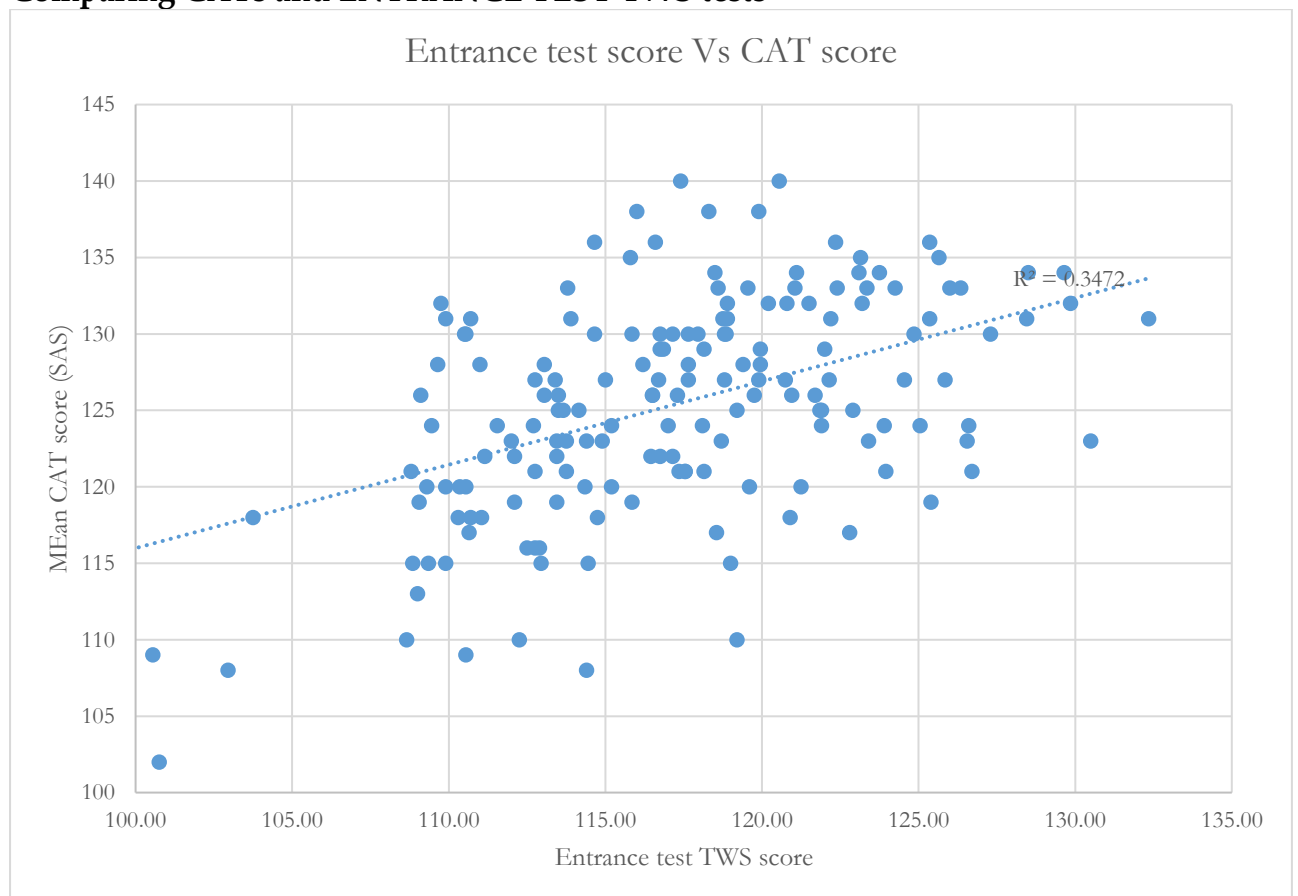
No SEND students have been identified as exceptionally able, although one is in the top 10 rank for entrance test (but 122 for Cat test)

PPG students

Of the 20 PPG students 16 students fell into the lower third of both CAT and or the Entrance Test TWS scores (individual scores are shown in the following table). Most of these students are also towards the tail of the Entrance Test TWS ranking.

CAT Ranking	Entrance Test Score	CAT Mean SAS
13	128.50	134
28	118.90	132
56	119.95	129
89	85.30	125
122	92.25	121
122	113.75	121
145	103.75	118
151	92.00	117
155	112.75	116
158	88.05	115
165	92.00	113
167	95.50	111
168	112.25	110
171	100.55	109
173	102.95	108
175	94.05	107
176	87.65	105
177	97.60	104
178	88.20	103
179	100.75	102

Comparing CATs and ENTRANCE TEST TWS tests



Ethnicity analysis

Please note that Indian and white British are our largest cohorts.

Row Labels	Count of Ethnicity	Average of Entrance Test	Average of mean SAS
Any other Black background	0.57%	97.60	104.00
Bangladeshi	5.68%	115.80	127.70
Black - Nigerian	4.55%	107.82	119.38
Filipino	0.57%	113.90	131.00
Greek/Greek Cypriot	0.57%	121.25	120.00
Hong Kong Chinese	1.70%	117.58	127.67
Indian	38.64%	118.95	125.51
Other Asian	3.41%	112.15	121.83
Other Black African	0.57%	100.55	109.00
Other Chinese	3.41%	118.36	130.83
Other ethnic group	2.27%	116.24	125.00
Pakistani	5.11%	116.70	123.67
Refused	2.27%	115.15	120.00
White - British	20.45%	113.55	125.08
White - Irish	0.57%	121.10	134.00
White and any other ethnic group	0.57%	110.70	131.00
White and Asian	5.68%	110.48	120.70
White and Black African	0.57%	112.75	121.00
White Eastern European	1.70%	116.62	126.33
White Other	1.14%	119.88	123.50
(blank)	0.00%	98.60	52.29
Grand Total	100.00%	115.06	117.97

Please note that drawing conclusions from any group with fewer than ten students it would not be statistically robust.

Variation between form groups

The table below shows the variation between tutor groups.

Form	Average of ENTRY TEST	Standard deviation of ENTRY TEST	Average of mean SAS	Standard deviation of mean SAS
7A	115.33	9.07	124.37	6.57
7C	115.51	8.56	124.73	8.51
7F	115.26	8.29	124.66	7.07
7G	117.01	8.47	123.73	8.26
7H	115.76	7.45	125.40	7.61
7S	115.47	7.50	124.60	7.64
Grand Total	115.72	8.27	124.58	7.66