

**MANDEL & ASSOCIATES LTD.**

Psychological and Rehabilitation Assessment Specialists

29 March 2021

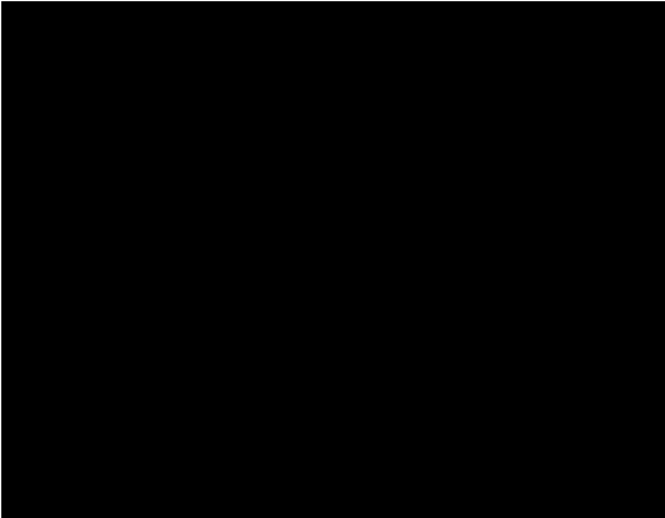
College of Alberta Psychologists  
1850 Sun Life Place  
10123 – 99 Street NW  
Edmonton, Alberta T5J 3H1

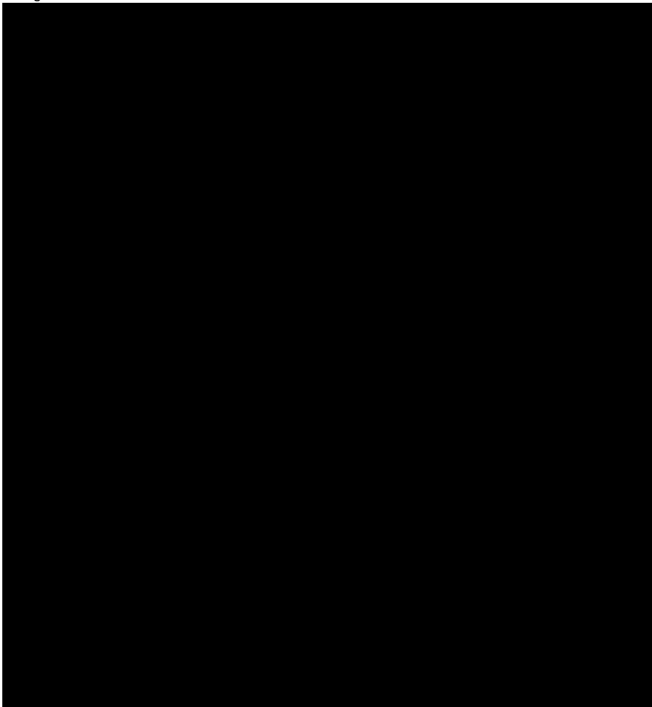
Attention: Dr. Troy Janzen

**Re: Complaint by Ms. [REDACTED]**

Dear Dr. Janzen:

I have received your letter dated 18 February 2021 together with Ms. [REDACTED] Complaint Reporting Form (CRF) and the volume of documents attached to the form. My response follows.





54. The manual for the General Aptitude Test Battery (1979) provides a table (9.3) titled "GATB Data on Aptitudes for Specific Occupations". The table is 70 pages long and provides objective data on 446 occupations, including teacher (#404, page 170). Three sets of data for both elementary and high school teachers are provided: an initial validation sample (N=234); a cross validation sample (N=263), and a combined sample (N=497). Table 9.3 in the GATB manual shows that the mean scores on G (general learning ability – equivalent to

FSIQ) were 118 (SD = 13) in the initial validation sample; 111 (SD = 13) in the cross validation sample, and 114 (SD = 13) for the combined sample. [REDACTED] raises objections to the statement included in our description of the GATB introduction "The GATB does what few other tests do; it permits comparison of client characteristics with those of actual workers in specific occupations". Yet Table 9.3 in the GATB manual proves that the statement is correct. Extracts from the GATB manual, or the full manual, can be provided to the College upon request.

55. The table in the GATB manual specifically indicates that the data (discussed above in 54) is based upon **both** elementary and secondary school teachers. These are differentiated from nursery school teachers, for whom a G of 104 is reported. Further, I would note that there is no distinction between elementary and high school teachers in the other sources I reviewed. Thirdly, there is no distinction between elementary and secondary teachers in university entry requirements. The choice to aim for elementary versus secondary teaching is made following admission to, or graduation from, the program.
- [REDACTED]

57. The field testing with the GATB, included in Table 9.3 of the GATB manual, provided aptitude scores for teachers based upon a sample of 497 university seniors in Education programs. This found that the average score on G for the combined sample was 114 (SD=13). Ms. [REDACTED] score on this measure was 83, more than 2 SDs below the mean.
58. Empirical data on the typical level of intelligence or general mental ability seen within a population of teachers is in fact available in the scientific literature, and this disproves [REDACTED] statement that teachers have only average intelligence and are less intelligent than other university graduates.
59. The table below, which is extracted from a book chapter by Gottfredson<sup>3</sup>, shows that on average teachers' general cognitive ability is above average, equivalent to an IQ score of 111 (77<sup>th</sup> percentile). The cognitive abilities required of teachers are similar to those of accountants, managers, and computer programmers.
60. The data presented in the below table shows not only the median score for teachers, but also provides a range from the 25<sup>th</sup> to 75<sup>th</sup> percentiles, which I interpret as 102 to 120. From this it can be determined that the standard deviation for Gottfredson's data is 13.3 (9/0.675 SD). Extrapolating from this, an IQ score of 86 (Ms. [REDACTED] score on the WAIS-IV) falls at the 3<sup>rd</sup> percentile as compared with other teachers. Her score on the GATB G scale (83) would fall in the bottom 1% of all teachers.

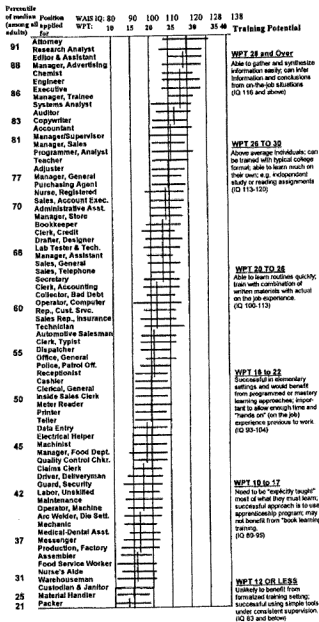


Figure 15.1: Wonderlic Personnel Test (WPT) scores by position applied for (1992). The bold horizontal line shows the range between the 25th and 75th percentiles. The bold crossmark shows the 50th percentile (median) of applicants to that job. Source: Wonderlic (1992: 20, 26, 27). Reprinted by permission of the publisher.

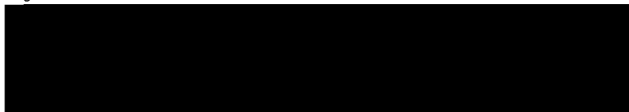
62. Beyond the data provided by Gottfredson, there is also empirical data about the intellectual abilities of teachers provided in a paper by Schmidt & Hunter<sup>4</sup>, which is reproduced here.

SCHMIDT AND HUNTER

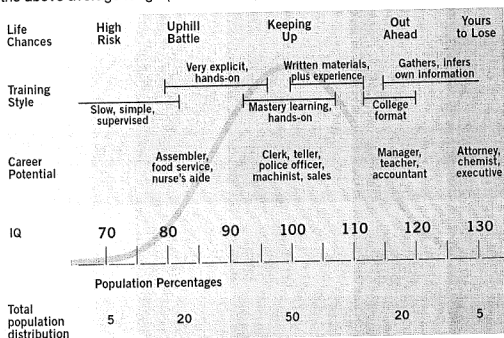
Table 1  
*Mean GCT Standard Scores, Standard Deviations, and Range of Scores of 18,782 AAF White Enlisted Men by Civilian Occupation (From Harrell & Harrell, 1945, pp. 231-232)*

Occupation	<i>N</i>	<i>M</i>	<i>Mdn</i>	<i>SD</i>	Range
Accountant	172	128.1	128.1	11.7	94-157
Lawyer	94	127.6	126.8	10.9	96-157
Engineer	39	126.6	125.8	11.7	100-151
Public-relations man	42	126.0	125.5	11.4	100-149
Auditor	62	125.9	125.5	11.2	98-151
Chemist	21	124.8	124.5	13.8	102-153
Reporter	45	124.5	125.7	11.7	100-157
Chief clerk	165	124.2	124.5	11.7	88-153
Teacher	256	122.8	123.7	12.8	76-155
Draftsman	153	122.0	121.7	12.8	74-155
Stenographer	147	121.0	121.4	12.5	66-151
Pharmacist	58	120.5	124.0	15.2	76-149
Tabulating-machine operator	140	120.1	119.8	13.3	80-151
Bookkeeper	272	120.0	119.7	13.1	70-157
Manager, sales	42	119.0	120.7	11.5	90-137
Purchasing agent	98	118.7	119.2	12.9	82-153
Manager, production	34	118.1	117.0	16.0	82-153
Photographer	95	117.6	119.8	13.9	66-147

63. This data (N=256) shows that mean GMA for teachers (measured with military's General Classification Test; meant to approximate GMA) was 122.8 (SD = 12.8), just below the scores for other professional occupations such as chemist, auditor, and engineer, and clearly above average. There was no distinction provided for elementary versus high school teachers.

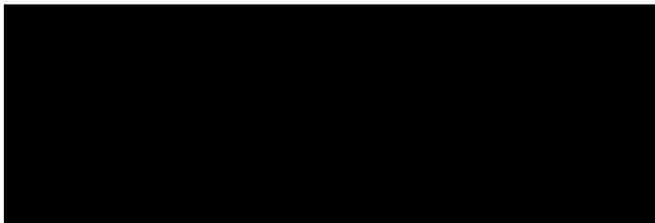


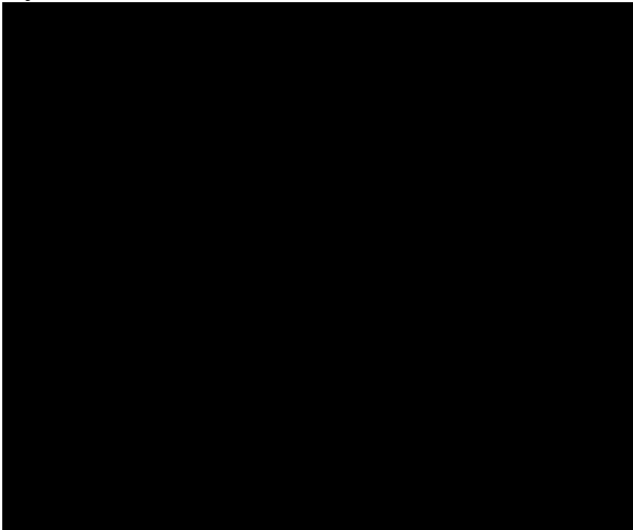
66. In another publication by Gottfredson<sup>4</sup>, the following chart is presented. Note that teachers' intellectual abilities are lumped with those of accountants and managers and clearly fall within the above average range (IQ 110 – 120).



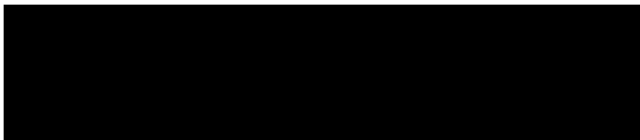
67.

her measured IQ in our assessment was 86, almost two standard deviations below the typical intellect exhibited by teachers.

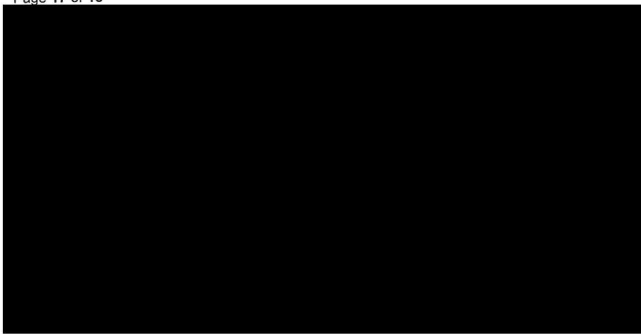




71. I would note that within Dr. Westcott's assessment, she in fact administered two measures of G – the GATB and the WAIS. Ms. [REDACTED] G scores on these two tests were highly consistent (83 [20<sup>th</sup> percentile] on the GATB; 86 [18<sup>th</sup> percentile] on the WAIS). These are age-related normative scores. As noted above, her scores on these measures when compared with other teachers fell at the 3<sup>rd</sup> percentile or lower.
72. [REDACTED] claim that the GATB does not measure abilities of actual workers in specific occupations is incorrect. In fact the GATB manual (Table 9.3) lists empirical data for the aptitudes of 446 occupations, including teacher.



Page 17 of 18



Sincerely,

A handwritten signature in purple ink, appearing to read 'Allan', is written over the word 'Sincerely,'. The signature is fluid and cursive, extending to the right with a long horizontal stroke.

Allan Mandel, Ph.D., R. Psych.



## References

- <sup>1</sup> Schmidt, F. The role of general cognitive ability and job performance: Why there cannot be a debate. Human Performance, 2002, 15(1/2), 187,210.
- <sup>2</sup> Gottfredson, L. Why *g* matters: The complexity of everyday life. Intelligence, 1997, 24(1), 79-132.
- <sup>3</sup> Gottfredson, L. *g*, jobs, and life. In Nyborg, H. The Scientific Study of General Intelligence. Oxford, United Kingdom, Elsevier Science, 2003
- <sup>4</sup> Schmidt, F. & Hunter, J. General mental ability in the world of work: Occupational attainment and performance. Journal of Personality and Social Psychology, 2004, 86(1), 162-173.
- <sup>5</sup> Gottfredson, L. The general intelligence factor. Scientific American, 1998, 24-29.
- <sup>6</sup> Schmidt, F. & Hunter, J. The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. Psychological Bulletin, 1998, 124(2), 262-74.