



AbilityProfiler

## 2009 TECHNICAL GUIDE

# ABILITY PROFILER

### Look Inside For...

Introduction to the Ability Profiler

Development of the Computer-Administered  
Ability Profiler

- Adapting the O\*Net Ability Profiler for  
Computer Administration
- Establishing Equivalent Scores
- Methods
- Results

Use and Interpretation of Results

- Score Report and Norming
- Lists of Matching Occupations

Summary

  
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# 1. Introduction to the Ability Profiler

The Ability Profiler Technical Guide is designed to provide a comprehensive understanding of the development process involved in adapting the original paper-and-pencil O\*NET Ability Profiler into a computer-administered version. This guide describes in detail how both versions of the Ability Profiler function in order to accurately measure a test-taker's abilities.

## 2. Development of the Computer-Administered Ability Profiler

### 2-1. Adapting the O\*NET Ability Profiler for Computer Administration

The Ability Profiler is a computer-administered version of six parts of the O\*NET Ability Profiler, originally published by the United States Department of Labor as a test booklet. There was no attempt to adapt the other parts of the O\*NET assessment for computer-administration (i.e., motor coordination, finger dexterity and manual dexterity), but raw scores from these O\*NET exercises can be entered for scoring by Choices®. There are many advantages to computer-based testing (CBT) over paper-and-pencil (P&P) testing, such as greater precision in measurement, higher standardization of test administration, and more immediate scoring and availability of results. The Ability Profiler delivers all these advantages and more.

Various modifications were made to the P&P O\*NET Ability Profiler in order to take advantage of the benefits of delivering the CBT Ability Profiler while maintaining the integrity of the test. General instructions were shortened, though care was taken to maintain key points included in the P&P version (from both the Administration Manual and the General Directions printed in the booklet), including:

- Proper use of results
- Best time to ask for clarification or get other help
- Strategies for taking power subtests
- Strategies for taking timed subtests

The directions on “How to change an answer” were modified to reflect the fact that test-takers would be using the computer rather than filling in and erasing marks made on an answer sheet. Other instructions were modified as appropriate to remove references to booklets and answer sheets.

On the P&P form, correct answers to the first few practise items for each section are reflected on the answer sheet (not in the booklet itself). On the CBT version, correct responses for these first few items are shown on the screen, with the test-takers' responses to subsequent practise items shown as correct or incorrect on the following screen. (For the P&P form, correct responses for subsequent practise items are delivered orally.) On only one subtest,

Three-Dimensional Space was the actual number of practise items reduced (from five to four) to fit available space on the screen. However, the number of items presented at one time in the P&P version differs from the number of items presented in the CBT version as follows:

- Arithmetic Reasoning: six items to two items.
- Vocabulary: 10 items to four items.
- Three-Dimensional Space: five items to two items.
- Computation: eight items to two items.
- Name Comparison: 30 items to 15 items.
- Object Matching: five items to two items.

In the P&P version, test-takers can see how many items were skipped or are remaining simply by looking at their answer sheets. On the CBT form, test-takers are constantly informed of the number of items remaining, as well as time remaining for each section, through the use of a note in the lower right-hand corner of the test screens. Test-takers may skip items by clicking continue to progress through the subtest. A screen at the end of each section tells test-takers whether they've completed all the items. If items were left unanswered, test-takers are encouraged to go back and try to answer them in the time they have remaining. A "skipped" button helps them easily locate such items.

There are three administration options defined for the P&P O\*NET Ability Profiler, with all options being described as having good validity.<sup>1</sup> The CBT Ability Profiler is most consistent with "Option 3," that is, "Administer the 6 non-psychomotor exercises (Parts 1-6)." This option takes approximately 1½ to two hours using the P&P version, but only 60 to 80 minutes using the CBT. The CBT version maintains the prescribed order with the power subtests (Arithmetic Reasoning, Vocabulary, Three-Dimensional Space) preceding the timed subtests (Computation, Name Comparison, Object Matching). However, the CBT facilitates the re-testing process (as deemed appropriate by a test supervisor) using any or all of the subtests, and also provides an option to enter scores for the psychomotor exercises from the O\*NET Ability Profiler.

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<sup>1</sup> National Center for O\*NET Development. (2002). O\*NET Ability Profiler administration manual. The reader is also encouraged to obtain further technical information about the development of the O\*NET Ability Profiler by consulting:

McCloy, R., Campbell, J., & Oswald, F. (1999). Generation and use of occupational ability profiles for exploring O\*NET occupational units (Vols I & II). Raleigh, NC: National Center for O\*NET Development.

Segall, D.O., & Monzon, R. I. (1995). Equating forms E and F of the P&P GATB. San Diego, CA: Navy Personnel Research and Development Center.

## **2-2. Establishing Equivalent Scores**

In order to take full advantage of the rich body of research regarding the O\*NET Ability Profiler (including its relationship to the General Aptitude Test Battery), it was necessary to demonstrate that the CBT Ability Profiler is simply an alternate and reliable form of the P&P O\*NET Ability Profiler.

## **2-3. Methods**

In this case, the first step was to confirm that the test items in both the CBT Ability Profiler and the P&P O\*NET Ability Profiler are the same. Using identical items from Form 1 of the O\*NET Ability Profiler provides the content validity assurance that each version is measuring the same construct with equal representation, and further, that the new CBT version can take advantage of the extensive research from O\*NET to assure that items are free from bias, producing results that are fair for test-takers of all backgrounds.<sup>2</sup>

The next step of the process is to ensure statistical equivalence so that test-takers do not experience any benefit or penalty by using either version. In other words, whether the CBT Ability Profiler or the P&P O\*NET Ability Profiler is administered, test-takers can rely on their results. To establish this statistical equivalence, the Rasch common item equating method was employed. The design represented a between groups nonequivalent quasi-experiment, where two groups of examinees from different samples were administered either the CBT or the P&P form. The two forms were internally linked by a set of anchor items, which represented all items from each of the two versions. These anchor items were used to adjust for population differences between the two groups.

The majority of the subjects in the test sample were high school students, though a small number of university students also took part. Attempts were made to recruit adults being served by various community agencies, but students proved to be much more accessible than adults for this field test and adequately served the purposes. There were 247 subjects who completed the CBT, and 136 who completed the P&P.

## **2-4. Results**

The average examinee ability estimate for the CBT was 1.95 logits, and the average ability estimate for the P&P form was 2.5 logits. This indicates a slightly higher ability estimate for the P&P sample, compared to those who were administered the CBT form. However, the majority of item difficulties ranged between -2 and +2 logits for both samples (see Appendix A).

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<sup>2</sup> National Center for O\*NET Development. (2002). O\*NET Ability Profiler User's Guide, page 29

The person-item location distributions for each version can be seen in Figures 1 (CBT) and 2 (P&P). The top display shows the person location while the lower display shows the item location distribution. Person locations are plotted so that any person has a 50% probability of succeeding on an item located at the same point on the logit scale; that same person would have a greater than 50% chance of succeeding on less difficult items. By examining Figures 1 and 2 we can see that the majority of test items are too easy for each sample, which is to be expected since the Ability Profiler was designed as a career exploration and counseling assessment tool rather than a formal licensure or certification test.

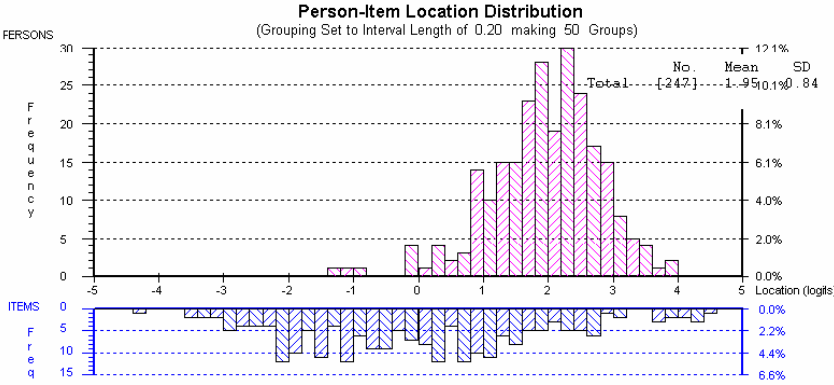


Figure 1. Person Item Location Distribution: CBT

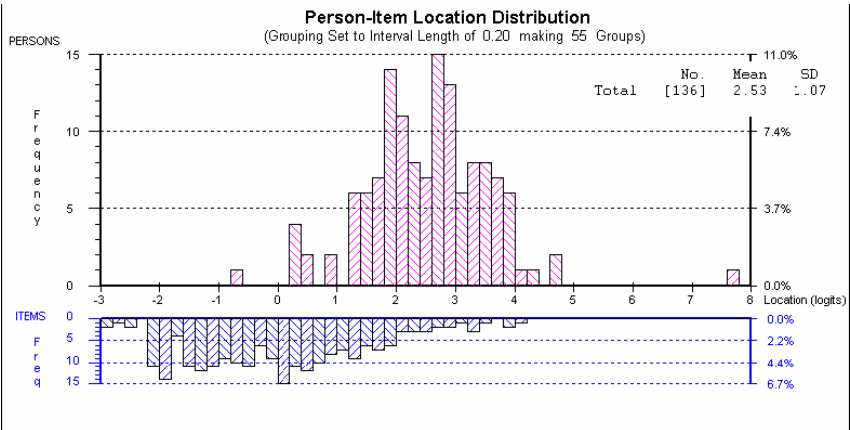


Figure 2. Person-Item Location Distribution: P&P

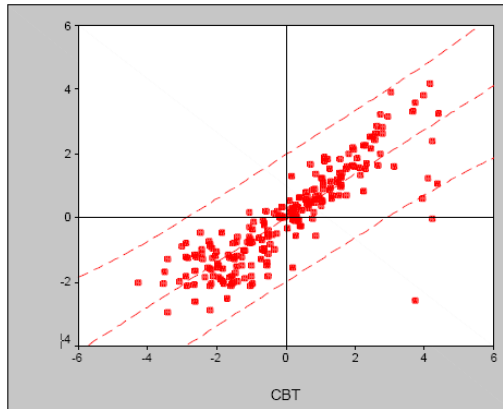


Figure 3. Scatterplot of Log Item Difficulty Values

The Rasch model provides error estimates for each item difficulty value, which is useful for constructing control lines (see Figure 3) around the distribution of plotted difficulty values. The control lines indicate whether the values are close enough to the modeled relationship (i.e. 99% CI) for the two forms to be considered sufficiently equivalent (i.e., within the limits of measurement error). On the whole, there are only two items that fall outside of the 99% CI; therefore, the CBT Ability Profiler and the P&P O\*NET Ability Profiler can and should be considered equivalent.

### Person Reliability Index

The person reliability index (reliability) indicates the repeatability of person ordering – of ability estimates – that could be expected if this same sample were given another set of items measuring the same construct. The higher the reliability, the more confidence we can place in the repeatability of item placement across other samples. The reliability for both the CBT and P&P forms were identical (.92), which indicates that we can place a great degree of confidence in the consistency of items across the two forms. The power of test of fit, which expresses the degree of confidence that can be placed in the reliability index, was excellent (categories are “Too Low,” “Low,” “Reasonable,” “Good,” and “Excellent”).

### Common Item Equating

Figure 3 displays an overlay plot of aggregate-level test score conversions between the CBT and P&P forms. Figures 4 through 9 show an overlay plot of test score conversions for each of the six subsections. Score conversions are presented at the top of each figure for the average ability examinee ( $M=2.15$ ) and are affixed to the location axis

(i.e., abscissa) by a vertical line. In each figure the blue display represents the CBT (1) and the red display represents the P&P (2) form. Notice that even at the extremes (i.e., ability = -3 or +3) there is little variation among test scores. That is, score conversions for both high and low ability examinees show little variation.

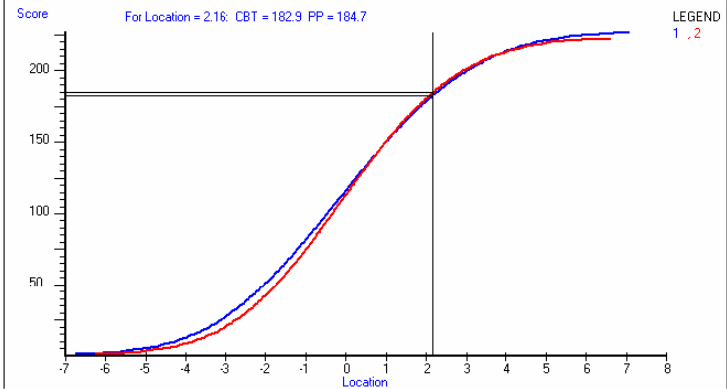


Figure 3. Aggregate-level test score conversions: CBT and P&P Forms

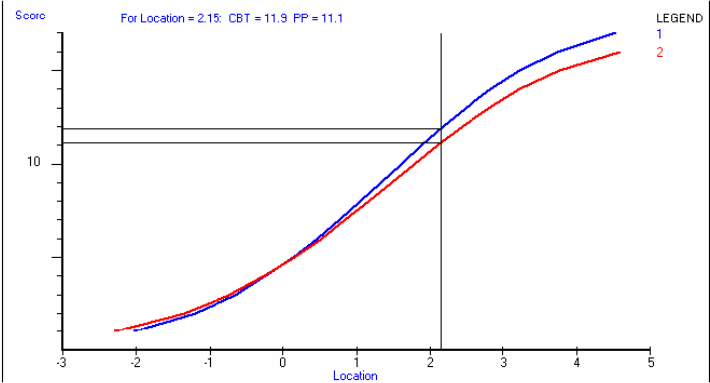


Figure 4. Arithmetic reasoning score conversions

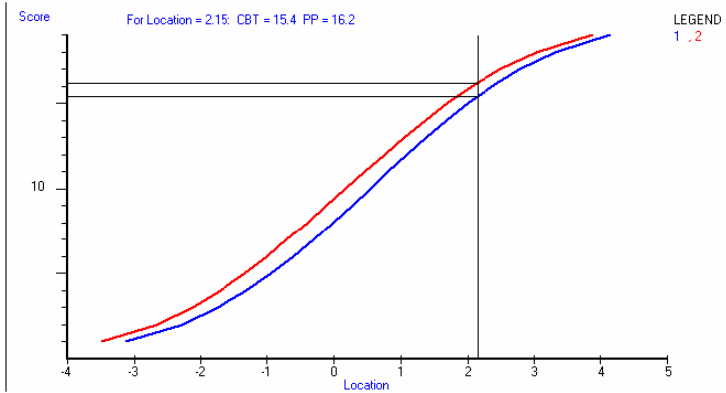


Figure 5. Vocabulary score conversions

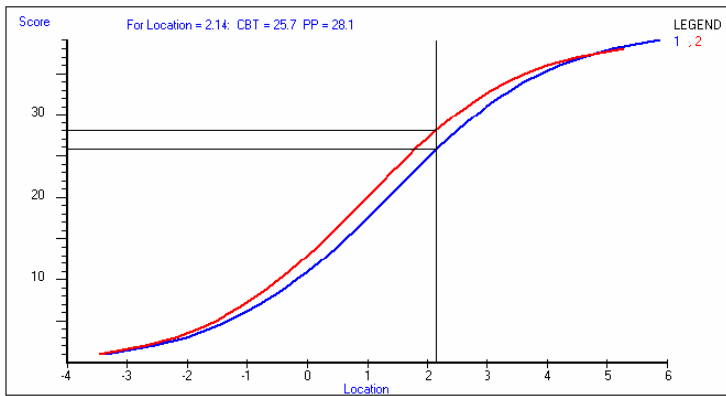


Figure 6. Three-dimensional space score conversions

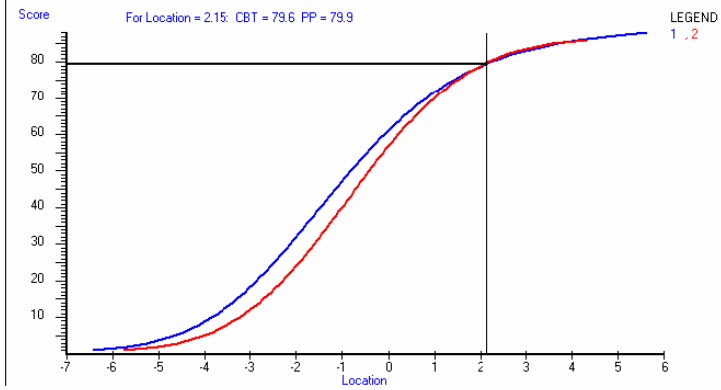


Figure 7. Computation score conversions

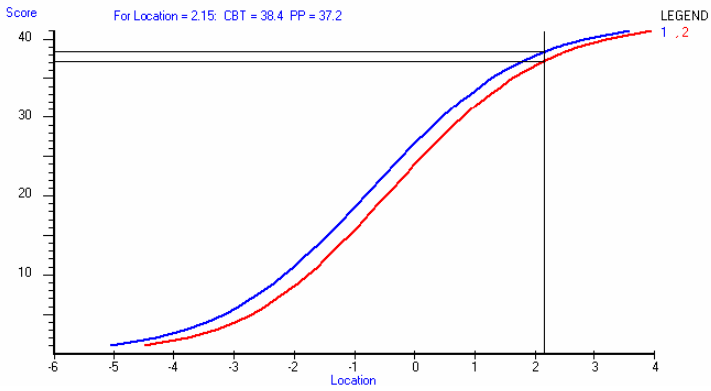


Figure 8. Name comparison score conversions

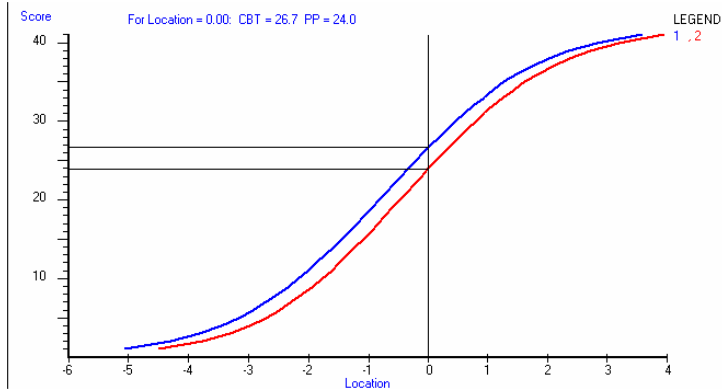


Figure 9. Object matching score conversions

### 3. Use and Interpretation of Results

*You can't flunk an assessment, but you can misuse one. Never let an assessment tell you what to do. Its purpose is only to give you some clues about your skills and interests.*

– Richard Bolles, author of *What Colour is Your Parachute*

This quote very aptly describes the purposes of the new O\*NET Career Exploration Tools, including the Ability Profiler. It is critical for test-takers to understand that their results are meant only to give them some clues about their current abilities in order to help inform the career exploration and planning process. As emphasized repeatedly in O\*NET Ability Profiler support documents, results must not be used for any job or education screening purposes (i.e. using cut-off scores).

#### 3-1 Score Report and Norming

As an alternate CBT form of the P&P O\*NET Ability Profiler, the Ability Profiler is able to take advantage of the psychometric, technical and operational enhancements over earlier Department of Labor ability instruments. The scores from the CBT Ability Profiler are expressed in terms of levels (1-5, with Level 1 being the top 10%) based on the percentile scores produced by the O\*NET Ability Profiler Scoring Program, using calibration procedures to link to the General Aptitude Test Battery norm group,<sup>3</sup> a sample of **4,000 people selected to reflect the general working population**. It is

<sup>3</sup> National Center for O\*NET Development. (2002). O\*NET Ability Profiler User's Guide, page 33. The reader is also encouraged to look for a final report from O\*NET that will describe the compatibility of the O\*NET Ability Profiler with the General Aptitude Test Battery based on extensive studies. This report is on the O\*NET Resource Center website: [http://www.onetcenter.org/dl\\_files/GenUseAP\\_vol1.pdf](http://www.onetcenter.org/dl_files/GenUseAP_vol1.pdf)

often helpful to reiterate to test-takers that their results show how their current abilities compare to the general working population. With further education and experience, their abilities are likely to improve.

The Score Report generated by the Ability Profiler uses a bar graph to show the test-taker's scores for each subtest expressed in levels as follows:

1. Top 10% of the working population (highest)
2. Top third of the working population (above average)
3. Middle third of the working population (average)
4. Bottom third of the working population (below average)
5. Bottom 10% of the working population (lowest)

The scores of the subtests are then converted to the corresponding General Aptitude Test Battery scores as follows:

- General Learning = average of Arithmetic Reasoning + Verbal
- Verbal = Verbal
- Numerical = average of Arithmetic Reasoning + Computation
- Spatial = Spatial
- Form Perception = Form Perception
- Q Clerical Perception = Clerical Perception

### **3-2 Lists of Matching Occupations**

The results of the (P&P) O\*NET Ability Profiler are used to help individuals link to occupations contained in the O\*NET database on the basis of a correlation between the shape of their ability profile and the shape of the ability profile defined for each occupation. (The individual's raw scores are calibrated to the corresponding converted scores for the General Aptitude Test Battery, Form A which reflect the aptitudes used to describe the occupations in O\*NET.) If an individual's profile correlates equally with two or more O\*NET occupations, the occupations will be listed in the Score Report from lowest to highest based on Euclidean distance, which introduces level of ability to the matching process.<sup>4</sup> In addition, the O\*NET Ability Profiler Score Report organizes the occupations recommended for further exploration by job zones, effectively introducing a second factor (education and training level) to the matching process.

The process of developing a list of suggested occupations based on CBT Ability Profiler results in Choices<sup>®</sup> varies from the process described for the P&P O\*NET Ability Profiler above in a couple of ways. The Score Report in Choices<sup>®</sup> includes the level (of ability) for the GATB aptitudes used to link assessment results to occupations, making this

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<sup>4</sup> McCloy, R., Campbell, J., Oswald, F., Lewis, P., & Rivkin, D. (1999) Linking client assessment profiles to O\*NET occupational profiles. Raleigh, NC: National Center for O\*NET Development.

matching process more transparent to users.

Rather than using the shape of an individual's ability profile, Choices® generates a list of occupations for each ability (General, Verbal, Numerical, etc.). By opening the folder representing each ability, most test-takers are able to see the occupations in Choices® that require about the same level of ability as they demonstrated on the Ability Profiler. Clicking on an occupation in the list reveals how other occupation ability requirements compare to their own abilities. This level of detail gives test-takers the chance to better understand how their strengths could be put to use in a variety of occupations.

Test-takers who score below average on three or more of the Ability Profiler subtests are encouraged to seek additional help from counselors or others in using and interpreting their results; lists of matching occupations do not appear. However, all test-takers have the option to link to any occupation in the Choices® database. With a simple click, the test-taker sees a comparison of how their personal abilities measure up to the ability requirements of the chosen occupation.

Should the user wish to add the education and training level (in contrast to the way this is included automatically as a function of the O\*NET Ability Profiler Scoring Program, not by choice of the examinee), they can easily do so by taking their ability results into a search process. Using the Choices® search feature will also enable users to continue to hone focus lists of occupations personalized by and for themselves. Various other features of the Choices® program can enhance the use of Ability Profiler results for test-takers. Choices® offers opportunities to easily explore many aspects of a great variety of occupations, and makes the process of matching occupations to an individual's abilities transparent and understandable.

#### **4. Summary**

The Ability Profiler has been shown to be an alternate and reliable form of the O\*NET Ability Profiler. As such, this assessment tool can stand on the strong foundation of research conducted by the Department of Labor to establish the validity and reliability of the instrument. However, the many advantages of using the CBT version will be obvious to both test-takers and test supervisors. The ease of administration, immediate scoring, and the intuitive design of the results report with ready connections to occupations, promises to make the Ability Profiler the preferred form of the assessment.

# APPENDIX

## Appendix A: Log Item Difficulty and Standard Error Values

Item name	CBT Difficult	CBT SE	P&P Difficulty	P&P SE
a1q1	-0.177	0.2	0	0.3
a1q2	-0.694	0.24	-0.98	0.43
a1q3	-0.494	0.22	-1.8	0.6
a1q4	0.644	0.16	0.305	0.27
a1q5	0.611	0.16	0.516	0.26
a1q6	1.084	0.15	0.889	0.23
a1q7	0.615	0.16	0.675	0.25
a1q8	1.295	0.14	0.929	0.23
a1q9	0.997	0.15	0.595	0.25
a1q10	1.566	0.14	1.393	0.21
a1q11	2.055	0.14	1.851	0.2
a1q12	1.972	0.14	2.13	0.19
a1q13	1.758	0.14	1.544	0.21
a1q14	2.247	0.14	2.253	0.19
a1q15	2.443	0.14	2.162	0.19
a1q16	2.431	0.14	2.509	0.19
a1q17	2.637	0.15	2.865	0.2
a1q18	2.721	0.16	3.216	0.2
a2q1	-0.541	0.23	-1.499	0.54
a2q2	-1.187	0.29	-1.877	0.63
a2q3	0.605	0.16	0.584	0.25
a2q4	1.042	0.15	0.513	0.26
a2q5	-0.087	0.2	0.005	0.3
a2q6	0.123	0.18	0.175	0.28
a2q7	0.424	0.17	-0.259	0.33
a2q8	0.825	0.16	0.478	0.26
a2q9	0.616	0.16	0.452	0.27
a2q10	1.071	0.15	1.023	0.23
a2q11	0.803	0.16	0.579	0.26
a2q12	2.573	0.14	2.419	0.19
a2q13	1.982	0.14	1.595	0.21
a2q14	3.745	0.18	3.598	0.21

Item name	CBT Difficult	CBT SE	P&P Difficulty	P&P SE
a2q15	3.691	0.18	3.334	0.2
a2q16	4.17	0.2	4.182	0.23
a2q17	2.79	0.14	2.611	0.19
a2q18	3.993	0.19	3.802	0.22
a2q19	2.948	0.15	3.142	0.2
a3q1	-2.102	0.42	-1.806	0.62
a3q2	-0.53	0.22	-1.386	0.51
a3q3	-1.257	0.3	-1.471	0.53
a3q4	-0.493	0.22	-1.119	0.46
a3q5	-0.612	0.23	-1.019	0.44
a3q6	-1.035	0.27	-2.11	0.71
a3q7	0.608	0.16	0.81	0.24
a3q8	-0.679	0.24	-0.698	0.39
a3q9	0.455	0.17	-0.25	0.33
a3q10	0.868	0.15	-0.571	0.37
a3q11	0.461	0.17	0.227	0.28
a3q12	0.966	0.15	0.687	0.25
a3q13	0.73	0.16	0.516	0.26
a3q14	1.022	0.15	1.248	0.22
a3q15	1.337	0.14	0.718	0.24
a3q16	1.594	0.14	0.968	0.23
a3q17	1.954	0.14	2.181	0.19
a3q18	2.721	0.14	1.979	0.2
a3q19	2.326	0.14	1.7	0.2
a3q20	2.598	0.14	2.635	0.19
a4q1	-1.976	0.4	-1.404	0.52
a4q2	-1.024	0.27	-0.772	0.41
a4q3	0.317	0.18	0.033	0.31
a4q4	0.286	0.18	-0.553	0.38
a4q5	0.653	0.16	0.397	0.28
a4q6	0.199	0.18	0.303	0.29
a4q7	-1.17	0.29	-1.016	0.45
a4q8	1.547	0.15	0.715	0.27
a4q9	-1.782	0.37	-2.034	0.7

Item name	CBT Difficult	CBT SE	P&P Difficulty	P&P SE
a4q10	-0.448	0.22	-0.832	0.42
a4q11	0.385	0.17	-0.069	0.32
a4q12	1.645	0.15	1.403	0.25
a4q13	-0.638	0.24	-0.97	0.45
a4q14	1.291	0.15	1.12	0.24
a4q15	0.777	0.16	-0.023	0.32
a4q16	0.801	0.16	0.175	0.3
a4q17	1.053	0.16	0.525	0.28
a4q18	0.915	0.16	0.583	0.27
a4q19	1.259	0.16	0.864	0.26
a4q20	1.765	0.16	0.699	0.28
a4q21	1.264	0.17	1.113	0.25
a4q23	1.595	0.18	1.029	0.28
a4q24	2.30	0.2	2.252	0.29
a4q25	1.589	0.21	1.265	0.32
a4q26	1.519	0.24	1.19	0.34
a4q27	2.246	0.25	0.848	0.36
a4q28	1.952	0.29	1.637	0.39
a4q29	2.301	0.3	1.525	0.47
a4q30	1.772	0.3	1.605	0.41
a4q31	1.121	0.33	1.753	0.49
a4q32	1.584	0.36	1.841	0.62
a4q33	4.235	0.76	2.382	0.79
a4q34	2.529	0.46	2.53	0.82
a4q35	3.046	0.6	3.9	1.42
a4q36	2.787	0.57	2.815	1.06
a4q37	4.427	1.05	3.239	1.3
a4q38	2.681	0.56	1.641	0.93
a4q39	3.121	0.63	1.606	0.93
a4q40	3.74	0.82-2.574	0.9	
a5q1	-1.915	0.39		
a5q2	-3.398	0.78-2.948	1.08	
a5q3	-2.037	0.41-1.191	0.49	
a5q4	-2.898	0.61-1.213	0.49	

Item name	CBT Difficult	CBT SE	P&P Difficulty	P&P SE
a5q6	2.841	0.6-2.128	0.74	
a5q7	2.152	0.44-2.058	0.71	
a5q8	-2.622	0.54	2.624	0.92
a5q9	-2.61	0.54	1.652	0.59
a5q10	-4.247	1.18-2.006	0.69	
a5q11	-3.535	0.83-2.036	0.7	
a5q12	-2.236	0.45-1.537	0.56	
a5q13	-2.581	0.53-1.225	0.49	
a5q14	2.414	0.49-0.983	0.45	
a5q15	-1.002	0.27	n/a	n/a
a5q16	-1.875	0.39-1.905	0.69	
a5q17	-2.606	0.54-1.163	0.48	
a5q18	-1.265	0.3-1.212	0.49	
a5q19	-2.89	0.61-0.802	0.42	
a5q20	-1.667	0.35-1.168	0.48	
a5q21	-1.049	0.27-0.291	0.34	
a5q22	2.176	0.44-2.099	0.72	
a5q23	3.02	0.65-0.877	0.43	
a5q24	-1.86	0.38-0.46	0.37	
a5q25	-2.193	0.45	0.811	0.42
a5q26	-1.475	0.33-1.298	0.51	
a5q27	-0.215	0.2	0.189	0.3
a5q28	-2.166	0.44-1.631	0.59	
a5q29	-1.829	0.38-1.99	0.69	
a5q30	-3.393	0.78-1.277	0.51	
a5q31	0.363	0.17	0.342	0.28
a5q32	-0.262	0.21-0.5	0.37	
a5q33	-0.113	0.2	0.337	0.28
a5q34	2.17	0.44-0.874	0.43	
a5q35	-0.95	0.26	0.374	0.36
a5q36	-0.394	0.22-0.512	0.38	
a5q37	-2.638	0.55-2.065	0.72	
a5q38	0.303	0.17	0.397	0.28
a5q39	2.324	0.47	1.836	0.65

Item name	CBT Difficult	CBT SE	P&P Difficulty	P&P SE
a5q40	-0.786	0.25-0.612	0.4	
a5q41	-1.823	0.38-1.581	0.6	
a5q42	-2.122	0.43-0.952	0.46	
a5q43	0.043	0.19-0.336	0.36	
a5q44	-2.19	0.45-2.875	1.1	
a5q45	-2.171	0.44-1.598	0.61	
a5q46	-3.077	0.68-1.974	0.72	
a5q47	-1.5	0.33-0.785	0.43	
a5q48	-0.147	0.2	0.078	0.31
a5q49	0.732	0.16	0.479	0.27
a5q50	-1.404	0.33-1.975	0.72	
a5q51	0.411	0.17	0.634	0.27
a5q52	0.207	0.18	0.056	0.32
a5q53	1.027	0.15	0.361	0.29
a5q54	-2.395	0.5	1.294	0.55
a5q55	0.342	0.1	8.089	0.34
a5q56	0.257	0.1	8.191	0.32
a5q57	-1.95	0.42-1.858	0.72	
a5q58	-2.202	0.48	0.735	0.45
a5q59	0.204	0.19	0.068	0.36
a5q60	-1.691	0.38	2.514	1.02
a5q61	.826	0.16	0.908	0.29
a5q62	-0.555	0.25	0.219	0.35
a5q63	0.884	0.16	0.678	0.31
a5q64	-1.391	0.35	-1.181	0.6
a5q65	0.198	0.2	-1.548	0.7
a5q66	1.068	0.16	1.218	0.29
a5q67	-2.015	0.47	-1.058	0.6
a5q68	-1.556	0.39	-2.057	0.96
a5q69	-0.995	0.31	-1.472	0.75
a5q70	0.278	0.2	0.11	0.42
a5q71	-1.574	0.4	-2.119	1.04
a5q72	3.956	0.22	0.609	0.39
a5q73	4.228	0.24	-0.028	0.48

Item name	CBT Difficult	CBT SE	P&P Difficulty	P&P SE
a5q74	-1.517	0.41	-1.997	1.09
a5q75	-1.61	0.43	-1.833	1.02
a5q76	4.379	0.27	1.057	0.4
a5q77	4.1	0.25	1.237	0.42
a5q78	-1.802	0.49	n/a	n/a
a5q79	-0.975	0.36	-0.755	0.75
a5q80	-1.056	0.37	-0.722	0.75
a5q81	-1.946	0.55	-1.484	1.05
a5q82	1.073	0.21	1.113	0.47
a5q83	0.78	0.23	0.855	0.53
a5q84	-0.503	0.33	-0.533	0.79
a5q85	-0.718	0.37	-1.286	1.06
a5q86	-2.448	0.74	-0.443	0.8
a5q87	-0.917	0.41	-0.111	0.79
a5q88	2.126	0.23	1.557	0.6
a5q89	2.165	0.24	1.325	0.62
a5q90	1.823	0.25	1.996	0.59
a6q1	-2.128	0.42	-1.253	0.5
a6q2	-3.489	0.79	-1.673	0.6
a6q3	-2.813	0.58	-1.263	0.5
a6q4	-2.425	0.49	-1.123	0.47
a6q5	-1.608	0.34	-1.245	0.5
a6q6	-2.881	0.6	-1.801	0.63
a6q7	-1.496	0.33	-1.222	0.49
a6q8	-1.958	0.4	-1.552	0.57
a6q9	-1.434	0.32	-0.742	0.41
a6q10	-1.527	0.33	-1.829	0.64
a6q11	-1.066	0.28	0.173	0.29
a6q12	-0.629	0.23	-0.147	0.33
a6q13	-1.424	0.32	-1.508	0.56
a6q14	-1.017	0.28	-0.658	0.39
a6q15	-0.319	0.21	-1.001	0.45
a6q16	-1.057	0.28	-0.588	0.38
a6q17	-1.437	0.33	-1.725	0.61

Item name	CBT Difficult	CBT SE	P&P Difficulty	P&P SE
a6q18	-1.377	0.32	-0.592	0.38
a6q19	0.15	0.18	0.267	0.29
a6q20	-0.634	0.24	-0.215	0.34
a6q21	-0.092	0.2	0.338	0.29
a6q22	-0.646	0.24	-0.108	0.33
a6q23	-1.102	0.28	-0.764	0.42
a6q24	0.389	0.17	0.638	0.26
a6q25	0.183	0.18	0.159	0.3
a6q26	-0.504	0.23	-0.407	0.37
a6q27	-0.03	0.2	0.049	0.32
a6q28	0.254	0.19	-0.095	0.34
a6q29	-0.983	0.29	-1.803	0.68
a6q30	0.107	0.2	0.552	0.28
a6q31	-0.151	0.22	0.002	0.35
a6q32	-1.199	0.33	-1.026	0.53
a6q33	-0.502	0.27	-0.6	0.48
a6q34	-0.97	0.34	-2.061	0.96
a6q35	-0.314	0.28	0.143	0.42
a6q36	1.315	0.2	0.605	0.4
a6q37	0.717	0.23	1.659	0.37
a6q38	0.162	0.27	1.295	0.39
a6q39	0.872	0.25	1.371	0.43
a6q40	1.124	0.26	1.891	0.42
a6q41	1.198	0.29	1.831	0.47
a6q42	1.603	0.31	1.281	0.48



Canada: Suite 200 – 1628 Dickson Ave. Kelowna, BC V1Y 9X1

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