**Appendix 1.** Adjective-noun collocations used in the current study

|  |  |  |
| --- | --- | --- |
| high frequency – high MI bin | high frequency – mid MI bin | high frequency – low MI bin |
| Collocation | Freq | MI | Collocation | Freq | MI | Collocation | Freq | MI |
| different ways  | 2.5 | 8.1 | common sense  | 2.4 | 7.6 | wide variety  | 2.2 | 5.9 |
| front door  | 2.8 | 9.0 | different types  | 2.4 | 7.7 | new technology  | 2.2 | 5.9 |
| civil war  | 2.7 | 8.9 | early days  | 2.3 | 7.1 | public interest  | 2.2 | 5.8 |
| good idea  | 2.9 | 9.4 | European countries  | 2.2 | 6.1 | legal aid  | 2.2 | 5.8 |
| good news  | 2.5 | 8.0 | foreign affairs  | 2.3 | 6.9 | disabled people  | 2.2 | 5.8 |
| hard work  | 2.5 | 8.3 | high quality  | 2.5 | 7.7 | vast majority  | 2.2 | 5.7 |
| political parties  | 2.5 | 8.4 | hot water  | 2.3 | 6.7 | economic growth  | 2.2 | 5.7 |
| human rights  | 3.1 | 9.8 | important part  | 2.4 | 7.3 | economic development  | 2.1 | 5.6 |
| large numbers  | 2.5 | 8.4 | small number  | 2.3 | 6.5 | good thing  | 2.1 | 5.6 |
| local government  | 3.6 | 11.6 | little girl  | 2.3 | 6.6 | real life  | 2.1 | 5.3 |
| long time  | 3.8 | 12.0 | local people  | 2.3 | 6.8 | real world  | 2.1 | 5.3 |
| new year  | 2.7 | 8.8 | mental health  | 2.2 | 6.3 | high speed  | 2.1 | 5.1 |
| old age  | 2.6 | 8.7 | nuclear weapons  | 2.3 | 7.1 | low level  | 2.0 | 4.8 |
| other things  | 3.1 | 9.7 | other members  | 2.4 | 7.4 | certain amount  | 2.1 | 4.9 |
| other countries  | 2.7 | 8.9 | developing countries  | 2.3 | 6.6 | social life  | 2.0 | 4.7 |
| recent years  | 3.3 | 10.9 | public relations  | 2.3 | 6.8 | political system  | 2.0 | 4.7 |
| rural areas  | 2.5 | 8.3 | public transport  | 2.2 | 6.0 | financial services  | 2.0 | 4.5 |
| social security  | 3.1 | 9.8 | short time  | 2.4 | 7.5 | good reason  | 2.0 | 4.4 |
| wide range  | 3.3 | 10.8 | white paper  | 2.4 | 7.6 | good job  | 2.0 | 4.2 |
| young man  | 3.3 | 10.6 | young children  | 2.5 | 8.0 | old lady  | 2.0 | 3.7 |

(Continued)

|  |  |  |
| --- | --- | --- |
| mid frequency – high MI bin | mid frequency – mid MI bin | mid frequency – low MI bin |
| Collocation | Freq | MI | Collocation | Freq | MI | Collocation | Freq | MI |
|  |  |  |  |  |  |  |  |  |
| varying degrees  | 1.2 | 13.0 | close friend  | 1.2 | 6.6 | extra time  | 1.1 | 4.2 |
| minimum wage  | 1.4 | 11.1 | dark hair  | 1.5 | 7.9 | full year  | 1.1 | 3.4 |
| diplomatic relations  | 1.5 | 11.0 | economic reform  | 1.2 | 7.8 | good condition  | 1.4 | 5.8 |
| mental illness  | 1.3 | 10.9 | final decision  | 1.2 | 6.7 | good practice  | 1.6 | 5.0 |
| equal opportunities  | 1.6 | 10.3 | financial support  | 1.5 | 6.5 | good chance  | 1.2 | 5.0 |
| sexual abuse  | 1.2 | 10.3 | foreign language  | 1.4 | 7.0 | good health  | 1.3 | 4.1 |
| advisory committee  | 1.2 | 10.1 | good fortune  | 1.2 | 7.6 | late night  | 1.3 | 5.6 |
| opposite direction  | 1.4 | 9.7 | high risk  | 1.6 | 6.4 | major changes  | 1.2 | 5.8 |
| personal computer  | 1.5 | 9.5 | high technology  | 1.2 | 6.0 | major problem  | 1.4 | 5.6 |
| national parks  | 1.2 | 9.2 | international trade  | 1.3 | 6.3 | major part  | 1.5 | 4.7 |
| foreign currency  | 1.3 | 9.2 | local residents  | 1.1 | 7.5 | new building  | 1.1 | 3.6 |
| various kinds  | 1.2 | 8.8 | low income  | 1.3 | 7.2 | new job  | 1.2 | 3.5 |
| regular basis  | 1.5 | 8.7 | main reason  | 1.4 | 6.4 | only reason  | 1.2 | 3.5 |
| bad weather  | 1.2 | 8.5 | main street  | 1.2 | 6.1 | previous day  | 1.5 | 5.7 |
| large amounts  | 1.4 | 8.5 | modern art  | 1.2 | 7.3 | public school  | 1.2 | 4.4 |
| economic recovery  | 1.2 | 8.4 | natural resources  | 1.2 | 7.8 | right side  | 1.4 | 3.6 |
| medical treatment  | 1.4 | 8.4 | short distance  | 1.1 | 7.6 | similar way  | 1.1 | 4.0 |
| significant differences  | 1.1 | 8.3 | short period  | 1.4 | 6.1 | small town  | 1.3 | 5.5 |
| environmental issues  | 1.2 | 8.3 | straight line  | 1.4 | 7.3 | social problems  | 1.2 | 4.9 |
| small businesses  | 1.5 | 8.2 | total cost  | 1.2 | 6.4 | wrong way  | 1.4 | 4.7 |

(Continued)

|  |  |  |
| --- | --- | --- |
| low frequency – high MI bin | low frequency – mid MI bin | low frequency – low MI bin |
| Collocation | Freq | MI | Collocation | Freq | MI | Collocation | Freq | MI |
|  |  |  |  |  |  |  |  |  |
| advanced courses  | 0.7 | 8.9 | average cost  | 0.6 | 6.3 | available information  | 0.1 | 3.4 |
| alcoholic drinks  | 0.3 | 12.6 | basic skills  | 0.2 | 6.9 | basic training  | 0.3 | 5.9 |
| blond hair  | 0.3 | 11.0 | direct link  | 0.2 | 7.6 | big difference  | 0.6 | 5.9 |
| bright colors  | 0.2 | 9.0 | early childhood  | 0.6 | 7.5 | cold air  | 0.4 | 5.9 |
| classical music  | 0.4 | 8.1 | economic decline  | 0.2 | 6.7 | current situation  | 0.3 | 5.8 |
| commercial banks  | 0.5 | 8.2 | sunny day  | 0.3 | 7.6 | efficient way  | 0.2 | 5.0 |
| happy ending  | 0.2 | 8.7 | equal rights  | 0.1 | 7.1 | good wishes  | 0.2 | 5.6 |
| historic buildings  | 0.6 | 10.1 | extra cost  | 0.4 | 6.1 | large family  | 0.4 | 3.6 |
| married couples  | 0.7 | 10.3 | financial crisis  | 0.1 | 6.8 | long journey  | 0.6 | 5.9 |
| mental disorder  | 0.5 | 10.7 | high temperatures  | 0.3 | 7.7 | long tradition  | 0.3 | 5.3 |
| mixed feelings  | 0.1 | 8.9 | hot weather  | 0.2 | 7.7 | low prices  | 0.2 | 5.8 |
| musical instruments  | 0.3 | 10.5 | key factor  | 0.6 | 7.7 | past experience  | 0.6 | 5.1 |
| narrow streets  | 0.1 | 8.9 | poor performance  | 0.3 | 6.1 | poor health  | 0.2 | 5.0 |
| Olympic games  | 0.6 | 11.1 | popular culture  | 0.6 | 7.7 | present situation  | 0.4 | 5.2 |
| racial discrimination  | 0.1 | 11.7 | positive attitude  | 0.2 | 7.8 | rural life  | 0.2 | 5.1 |
| serious injury  | 0.5 | 8.1 | public awareness  | 0.3 | 6.5 | small piece  | 0.3 | 4.9 |
| skilled workers  | 0.4 | 8.9 | shallow water  | 0.3 | 8.0 | standard form  | 0.4 | 5.0 |
| soft drinks  | 0.4 | 10.0 | short stories  | 0.5 | 7.2 | strong feeling  | 0.1 | 5.7 |
| warm welcome  | 0.6 | 8.6 | significant changes  | 0.7 | 6.4 | sufficient time  | 0.3 | 3.7 |
| wild animals  | 0.6 | 8.4 | similar pattern  | 0.3 | 6.2 | true love  | 0.2 | 5.0 |

*Note:* Freq refers to collocation frequency, measured by logged number of occurrences per million words of the whole adjective-noun collocation. MI refers to contingency strength of the collocations measured by mutual information.

**Appendix 2.** Descriptive statistics for the aptitude measures

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Task | Mean | SD | Min | Max | PossibleMax | Reliability |
| LLAMA B | 57.5 | 20.5 | 10 | 100 | 100 | .79 |
| LLAMA D | 29.5 | 14.7 | 5 | 60 | 75 | .46 |
| LLAMA F | 65.5 | 23.2 | 10 | 90 | 100 | .73 |
| 3TC | 55.6 | 26.8 | 10 | 103 | 120 | .62 |
| OSPAN | 0.62 | 0.14 | 0.23 | 0.91 | 1 | .80 |
| SRT | 2.7 | 1.7 | 0 | 6 | 6 | .59 |

**Appendix 3.** Correlations between the aptitude measures

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SRT | 3-Term | WMC | LLAMA B | LLAMA F | LLAMA D |
| SRT | — |  |  |  |  |  |
| 3-Term | .09 | — |  |  |  |  |
| WMC | .15 | .42 | — |  |  |  |
| LLAMA B | .21 | .46 | .35 | — |  |  |
| LLAMA F | .10 | .45 | .42 | 0.51 | — |  |
| LLAMA D | .14 | .09 | .09 | .34 | .33 | — |

**Appendix 4.** Correlations between the aptitude measures and PJT performance

|  |  |  |
| --- | --- | --- |
| Measure  | L1 speaker | L2 speaker |
| RT | Accuracy | RT | Accuracy  |
| SRT | -.22 | .28 | .04 | -.05 |
| 3-Term | -.06 | .22 | -.01 | .33 |
| WMC | -.16 | .23 | -.09 | .00 |
| LLAMA B | -.09 | -.11 | -.01 | .12 |
| LLAMA F | .09 | .16 | -.02 | .37 |
| LLAMA D | -.11 | -.01 | .04 | .25 |