| factors | Quadratic polynomial stepwise regression | Stepwise regression item factors and interactions | Many factor and squared regression step by step | Stepwise regression |
|---------|--|---|---|---------------------|
| р       | 0.0112                                   | 0.0040  | 0.0364  | 0.2998              |
| r       | 0.9999                                   | 0.9999  | 0.9998  | 0.9312              |
| d       | 1.8234                                   | 1.7351  | 1.0412  | 1.8205              |

## Table S1 Analysis results of each method

p < 0.05 indicating a significant difference;

The closer the absolute value of r is closer to 1, the higher the degree of correlation between variables;

d statistics shows that residual is around 2 to obey normal distribution.