Description of Additional Supplementary Files

File Name: Supplementary Data 1
Description: Summary of the literatures on the phenotypes related to the current study.

File Name: Supplementary Data 2
Description: The descriptions of the GWAS summary statistics of 14 cognitive traits used in the GenomicSEM

File Name: Supplementary Data 3
Description: The genetic correlation matrix of 14 cognitive phenotypes, estimated by linkage disequilibrium score regression (LDSC) method

File Name: Supplementary Data 4
Description: The results of exploratory factor analysis in the GenomicSEM with the 14 cognitive GWAS summary statistics

File Name: Supplementary Data 5
Description: Genomic loci associated with cognitive processing speed

File Name: Supplementary Data 6
Description: Genomic loci associated with cognitive processing accuracy

File Name: Supplementary Data 7
Description: The genetic correlation between the two factors (i.e. cognitive processing speed and cognitive processing accuracy) and related phenotypes in previous studies under both data-driven and hypothesis-driven framework

File Name: Supplementary Data 8
Description: The genetic correlation between the two factors (i.e. cognitive processing speed and cognitive processing accuracy) and brain structural phenotypes

File Name: Supplementary Data 9
Description: The difference of the genetic correlation between the two factors (i.e. cognitive processing speed and cognitive processing accuracy) and brain structural phenotypes

File Name: Supplementary Data 10
Description: Estimates of genetic correlations between the two factors (i.e. cognitive processing speed and cognitive processing accuracy) and 40 health-related phenotypes

File Name: Supplementary Data 11
Description: Estimates of the two-sample two-direction Mendelian randomization between two factors (i.e. cognitive processing speed and cognitive processing accuracy) and nine psychiatric disorders using Inverse Variance-Weighted method

File Name: Supplementary Data 12
Description: The results of sensitive analyses in the Mendelian randomization using different estimation methods

File Name: Supplementary Data 13
Description: The prioritized genes identified by MAGMA software for cognitive processing speed

File Name: Supplementary Data 14
Description: The prioritized genes identified by MAGMA software for cognitive processing accuracy

File Name: Supplementary Data 15
Description: The results of MAGMA Gene-Set analysis for cognitive processing speed

File Name: Supplementary Data 16
Description: The results of MAGMA Gene-Set analysis for cognitive processing accuracy

File Name: Supplementary Data 17
Description: MAGMA gene-property analysis results of 54 specific tissue types for the two factors

File Name: Supplementary Data 18
Description: MAGMA gene-property analysis results of 11general developmental stages for the two factors

File Name: Supplementary Data 19
Description: MAGMA gene-property analysis results of cell types

File Name: Supplementary Data 20
Description: Prediction of the multiple cognitive abilities in young adolescents by the polygenic score of the two factors (i.e. cognitive processing speed and cognitive processing accuracy)