

Image source data file of Extended Data Fig 3

User Feature			
Name	Abbr.	Data type	Description
Paid	P	Disc.	Has the user subscribed to a paid account?
Male	M	Disc.	Was male chosen as the user's gender during registration?
Female	F	Disc.	Was female chosen as the user's gender during registration?
Age	A	Cont.	The age that the user specified during registration.
Education Level	E	Cont.	The education level that the user specified during registration.

Scheduling Feature			
Name	Abbr.	Data type	Description
Game Count	GaC	Cont.	The number of times the user has practiced this particular game.
Area Count	ArC	Cont.	The number of times the user has practiced games from the same area as the current game.
Attribute Count	AtC	Cont.	The number of times the user has practiced games from the same attribute as the current game.
Game Interval	Gal	Cont.	The time duration elapsed since the last time the user practiced this game.
Area Interval	ArI	Cont.	The time duration elapsed since the last time the user practiced a game from the same area as the current game.
Attribute Interval	AtI	Cont.	The time duration elapsed since the last time the user practiced a game from the same attribute as the current game.

Exercise Feature			
Skill	Abbr.	Subskill	Abbr.
General	GE	-	-
Attention	AT	Attentional Deployment	AD_AT
		Divided Attention	DA_AT
		Field of View	FV_AT
		Information Processing	IP_AT
		Selective Attention	SA_AT
		Spatial Orientation	SO_AT
		Timing	TI_AT
Flexibility	FL	Visualization	VI_AT
		General Flexibility	GF_FL
		Response Inhibition	RI_FL
Language	LA	Task Switching	TS_FL
		Reading Comprehension	RC_LA
		Verbal Fluency	VF_LA
Math	MA	Vocabulary Proficiency	VP_LA
		General Math	GM_MA
Memory	ME	Numerical Calculation	NC_MA
		Divided Attention	DA_ME
		Face-Name Recall	FR_ME
		Field of View	FV_ME
		Information Processing	IP_ME
		Spatial Recall	SR_ME
Reasoning	RE	Working Memory	WM_ME
		Logical Reasoning	LR_RE
		Planning	PL_RE
		Spatial Reasoning	SR_RE