

Abilities needed for the games

ABILITIES		DEFINITION
COGNITIVE	Short Term Memory (Working Memory)	The capacity to hold and manipulate information “on-line” in real time.
	Visual and Spatial Ability	Ability to process incoming visual stimuli, to understand spatial relationship between objects, and to visualize images and scenarios
	Processing speed	The ability to minimize the time cycle of a repeated movement.
	Motor Skills	Ability to mobilize our muscles and bodies, and ability to manipulate objects.
	Inhibition / Attention	The ability to withstand distraction, and internal urges / Ability to sustain concentration on a particular object, action, or thought, and ability to manage competing demands in our environment.
	Orientation	Processing of spatial, temporal, and social relations relies on mental cognitive maps, on which the behaving self is oriented relative to different places, events, and people.
	Anticipation	Prediction based on pattern recognition.
	Problem solving	Defining the problem in the right way to then generate solutions and pick the right one.
	Decision Making	The ability to make decisions based on problem-solving, on incomplete information and on emotions (ours and others’).
	Sequencing	The ability to break down complex actions into manageable units and prioritize them in the right order.
PHYSICAL	Strength	The ability of a muscular unit, or combination of muscular units, to apply force.
	Endurance (Muscular fatigue)	A state of exhaustion or loss of strength and/or muscle endurance following strenuous activity associated with the accumulation of lactic acid in muscles.
	Balance	The ability to control the placement of the bodies center of gravity in relation to its support base.

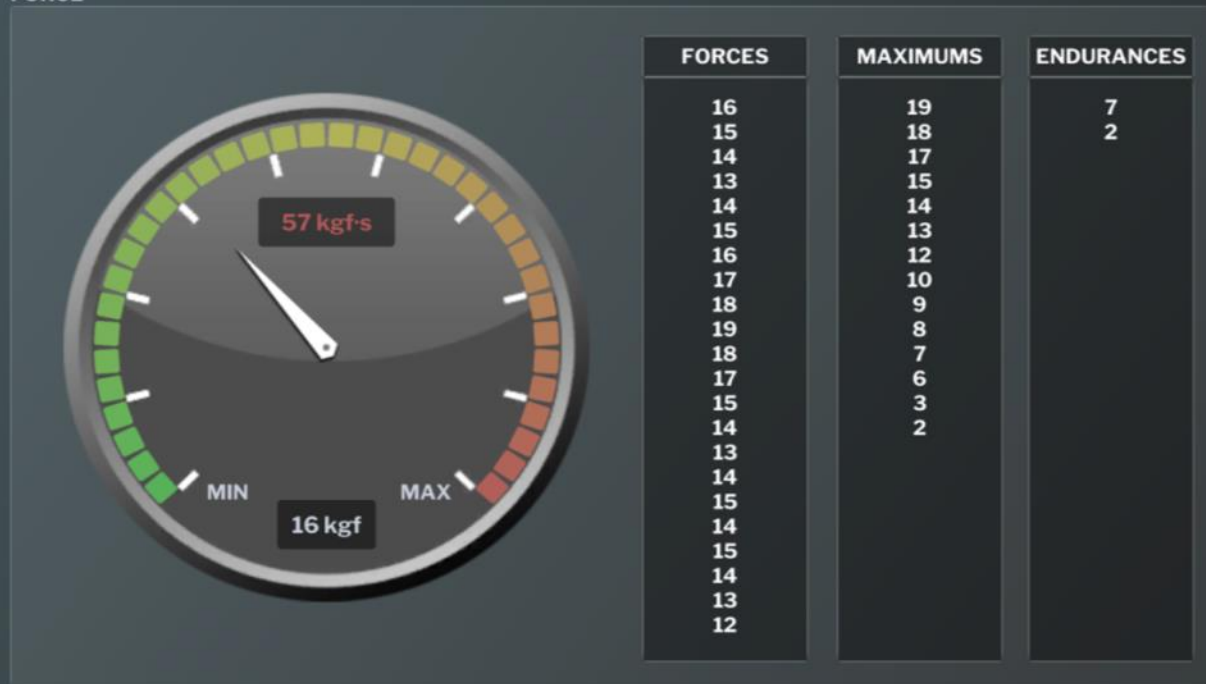
Force Analyzer

Units: Kgf



19/01/2018 16:38:31 - 8.4s

FORCE

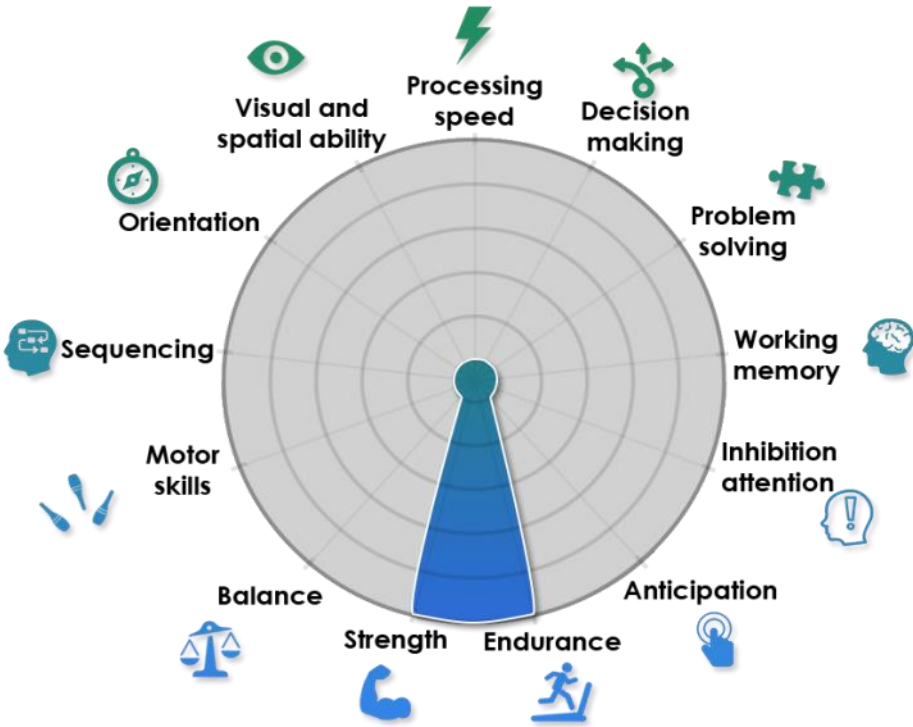


35.8 lbs

brainstormpatient1@demo.eu



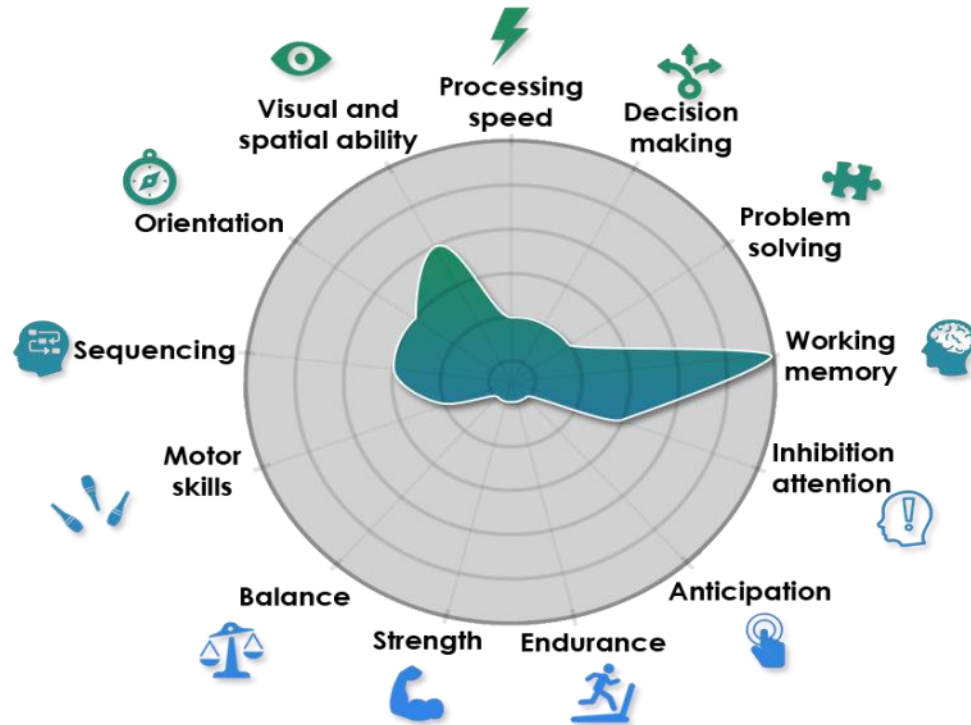
Force Analyzer



Memory



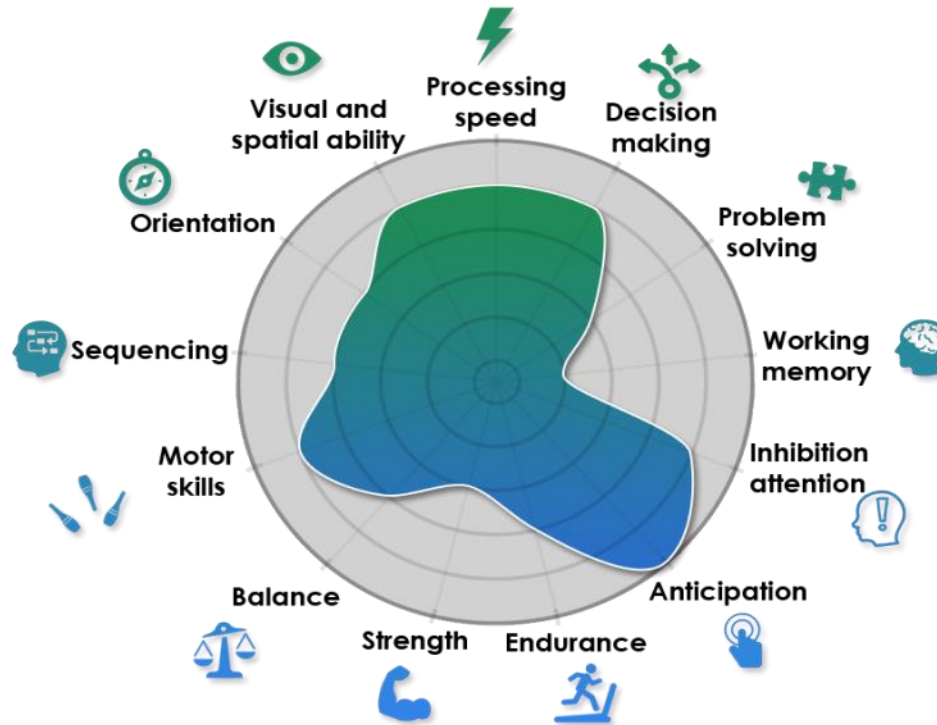
Memory



Railway



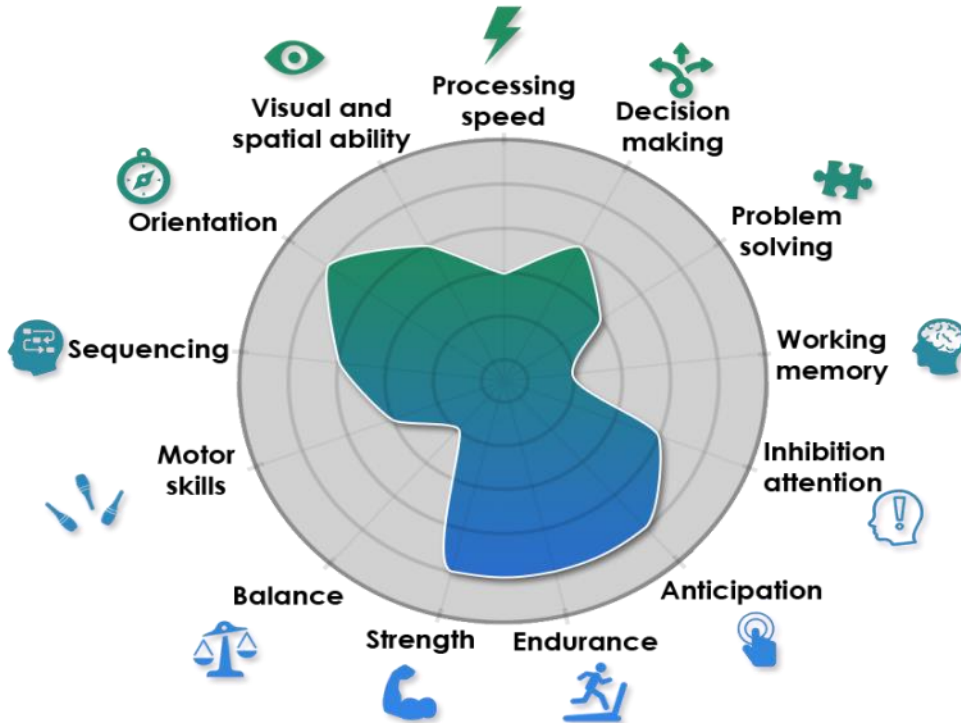
RailWay



Red Wings



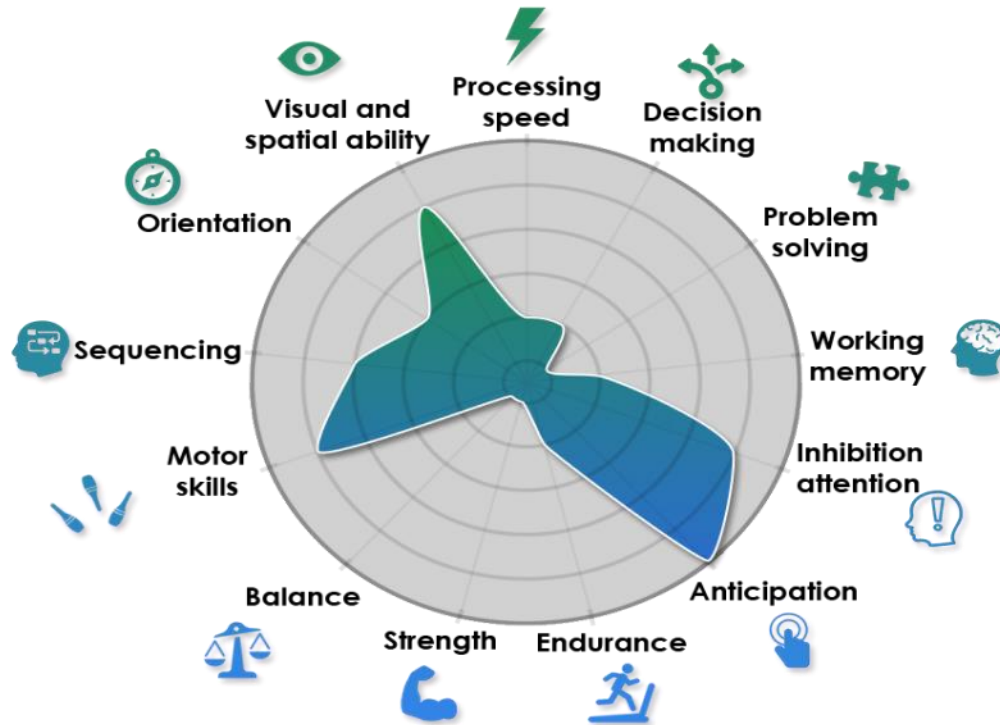
RedWings



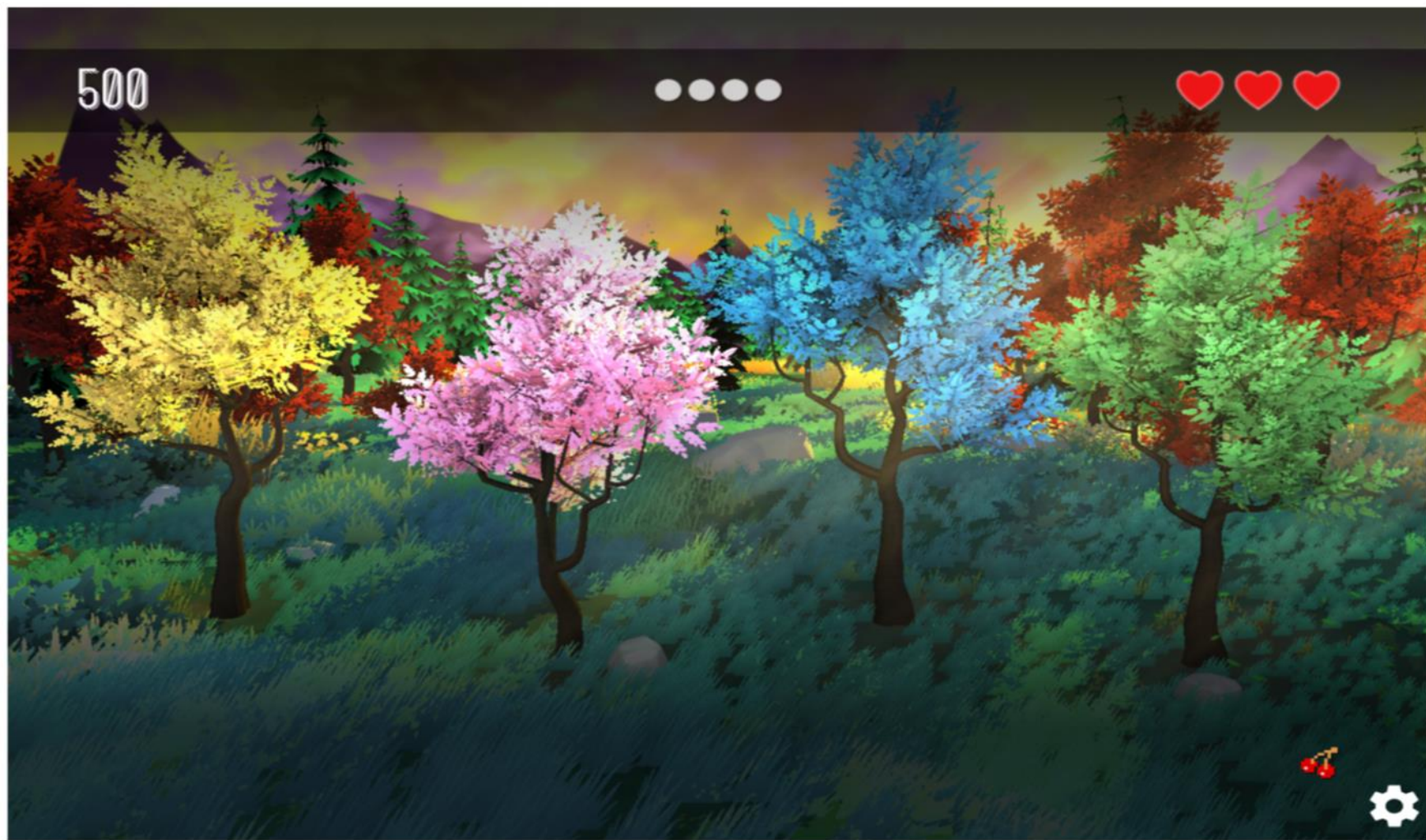
Reflex



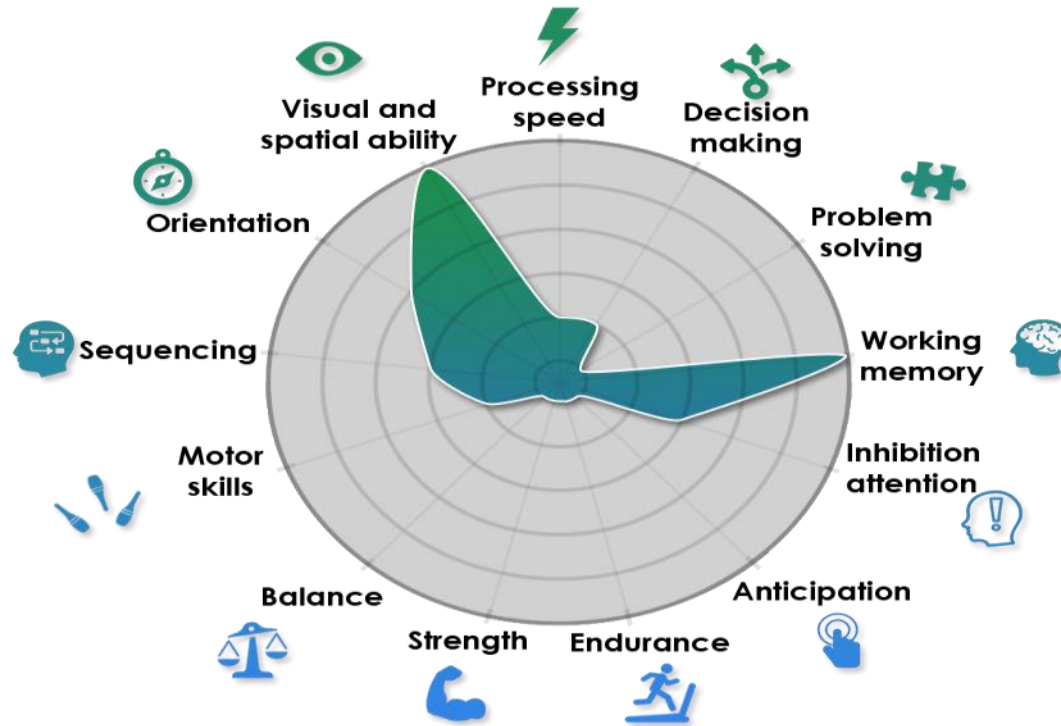
Reflex



Simon



Simon

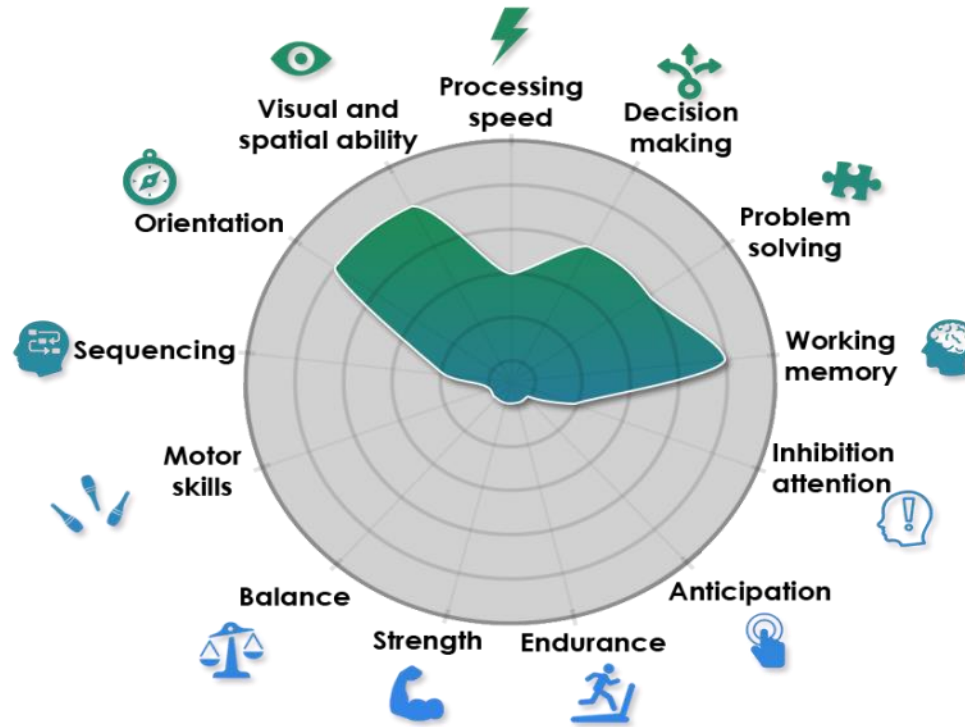


Virtual supermarket

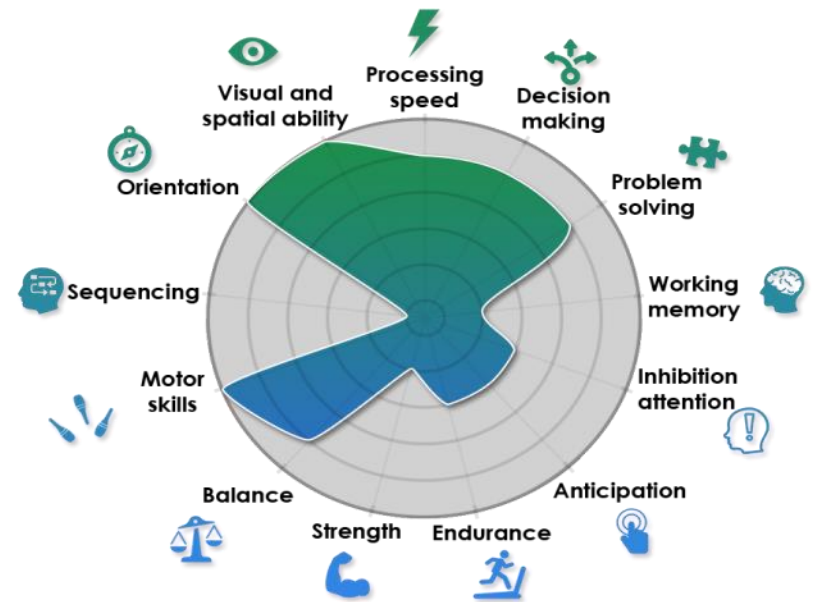
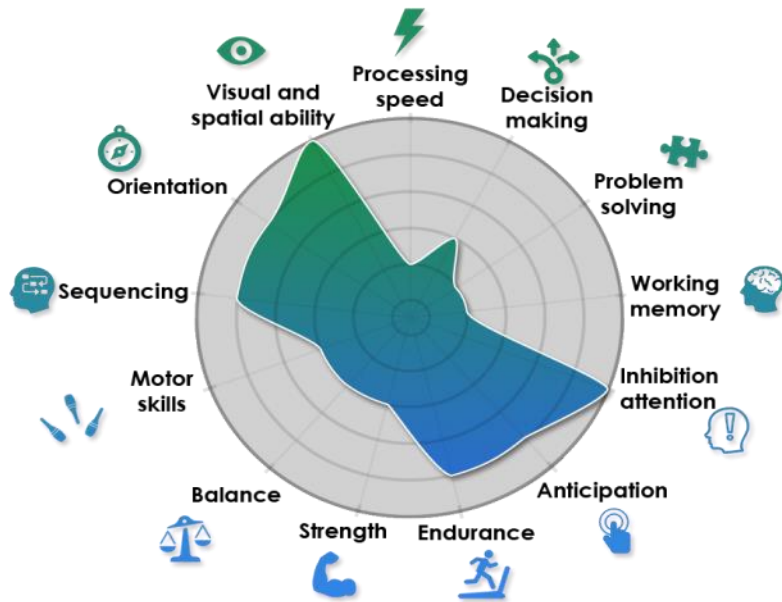


Μπορείτε να προσθέσετε ένα προϊόν στο καλάθι σας, κάνοντας κλικ στο αντίστοιχο κουμπί "πρόσθεση" του κάθε προϊόντος. Μπορείτε να αφαιρέσετε ένα προϊόν επιλέγοντας το από την λίστα του καλαθιού σας. Ακολουθείστε τα βήματα για να κινηθείτε στον χώρο.

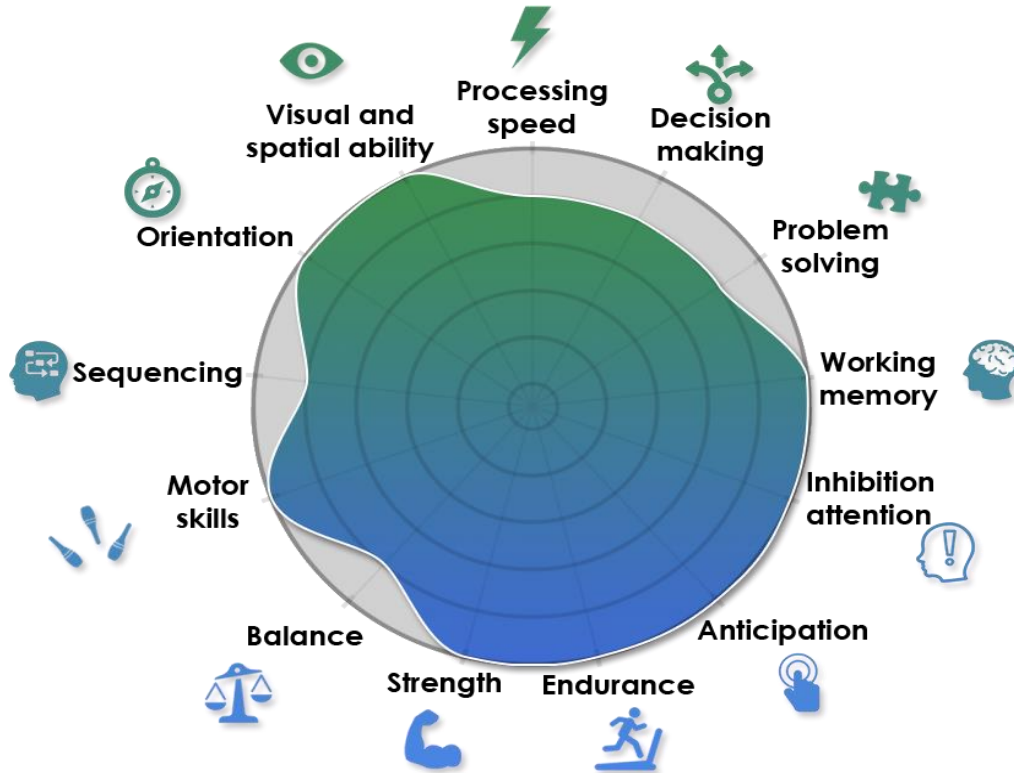
Virtual Supermarket



Floating Archery / Gravity Ball



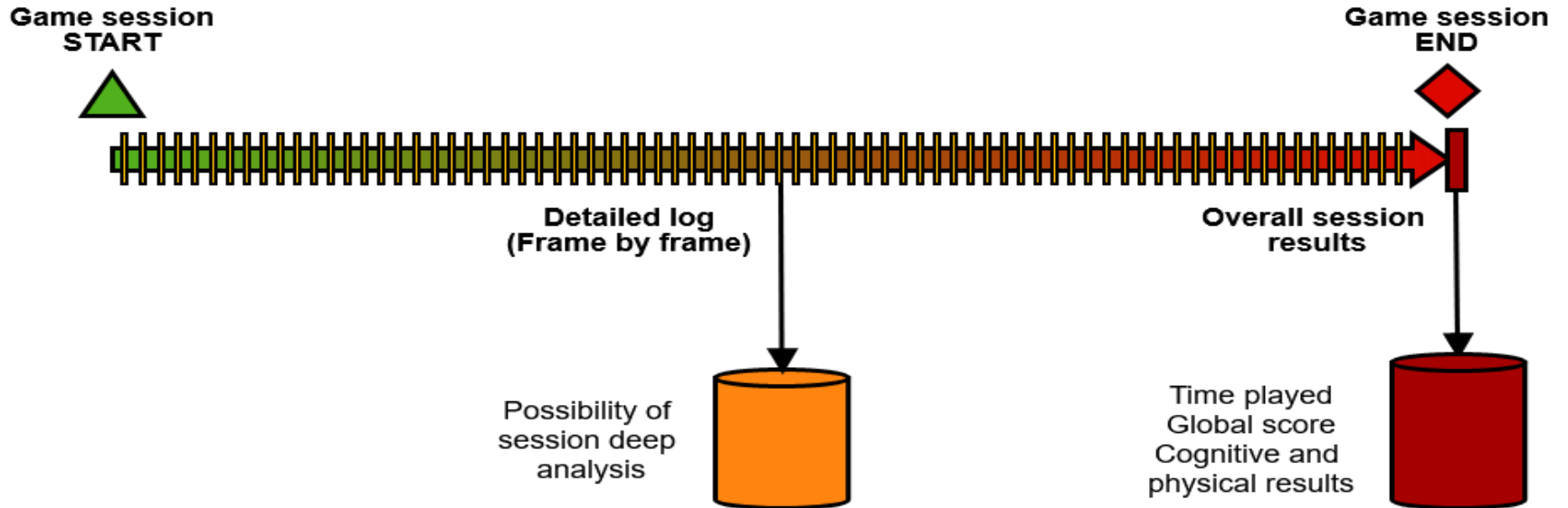
Global



Games / Abilities

SET OF GAMES	COGNITIVE ABILITIES										PHYSICAL ABILITIES		
	Working Memory	Visual and Spatial Ability	Processing speed	Motor Skills	Inhibition / Attention	Orientation	Anticipation	Problem-solving	Decision Making	Sequencing	Strength	Endurance (Muscular fatigue)	Balance
FORCE ANALYZER											✓	✓	
RED WINGS							✓	✓	✓		✓	✓	
RAIL WAY				✓			✓						✓
SIMON	✓	✓	✓		✓					✓			
MEMORY	✓		✓		✓								
REFLEX		✓		✓			✓		✓	✓			
VIRTUAL SUPERMARKET						✓		✓	✓				
GRAVITY BALL		✓		✓				✓	✓				
FLOATING ARCHERY TARGET		✓		✓			✓		✓	✓			

Data recording system



Session Logs

Detailed session log

	A	B	C	D	E	F	G	H	I
1	User	Date	Time	Frame	Force	Distance	Height	Lives	Speed
2	3120@frailsa	06/09/2018	10:07:00						
3				0	30	0,003375	-1,609364	4	0,003375
4				1	30	0,00856875	-1,603426	4	0,00519375
5				2	30	0,01552669	-1,579518	4	0,00695794
6				3	30	0,02565088	-1,56205	4	0,0101242
7				4	30	0,03884636	-1,538987	4	0,01319547
8				5	30	0,05502097	-1,538987	4	0,01617461
9				6	0	0,07016312	-1,501614	4	0,01514215
10				7	0	0,08427882	-1,467859	4	0,0141157
11				8	0	0,09737531	-1,437651	4	0,01309649
12				9	0	0,1094615	-1,410921	4	0,01208623
13				10	0	0,1205489	-1,3876	4	0,0110874
14				11	0	0,1306527	-1,367622	4	0,01010373
15				12	0	0,1407564	-1,367622	4	0,01010373
16				13	0	0,1498976	-1,350921	4	0,00914117
17				14	0	0,1581075	-1,337433	4	0,00820989
18				15	0	0,1654364	-1,327094	4	0,00732889
19				16	0	0,171974	-1,319844	4	0,00651786
20				17	0	0,1779013	-1,315621	4	0,00597511
21				18	0	0,1838285	-1,315621	4	0,00560007
22				19	0	0,1895227	-1,318388	4	0,0053434
23				20	0	0,1950156	-1,318388	4	0,0051839
24				21	0	0,2003189	-1,318388	4	0,0051173
25				22	0	0,2054327	-1,318388	4	0,0050437
26				23	0	0,210357	-1,318388	4	0,0049621
27				24	0	0,2150927	-1,318388	4	0,0048725
28				25	0	0,2196396	-1,318388	4	0,0047749
29				26	0	0,2239979	-1,318388	4	0,0046693
30				27	0	0,2281676	-1,318388	4	0,0045557
31				28	0	0,2321487	-1,318388	4	0,0044341
32				29	0	0,2359412	-1,318388	4	0,0043045
33				30	0	0,2395451	-1,318388	4	0,0041669
34				31	0	0,2429604	-1,318388	4	0,0040213
35				32	0	0,2461871	-1,318388	4	0,0038677
36				33	0	0,2492252	-1,318388	4	0,0037061
37				34	0	0,2520747	-1,318388	4	0,0035365
38				35	0	0,2547356	-1,318388	4	0,0033589
39				36	0	0,2572079	-1,318388	4	0,0031733
40				37	0	0,2594916	-1,318388	4	0,0029797
41				38	0	0,2615867	-1,318388	4	0,0027781
42				39	0	0,2634932	-1,318388	4	0,0025685
43				40	0	0,2652111	-1,318388	4	0,0023509
44				41	0	0,2667404	-1,318388	4	0,0021253
45				42	0	0,2680811	-1,318388	4	0,0018917
46				43	0	0,2692332	-1,318388	4	0,0016501
47				44	0	0,2701967	-1,318388	4	0,0014005
48				45	0	0,2709716	-1,318388	4	0,0011429
49				46	0	0,2715579	-1,318388	4	0,0008773
50				47	0	0,2719556	-1,318388	4	0,0006047
51				48	0	0,2721647	-1,318388	4	0,0003251
52				49	0	0,2721852	-1,318388	4	0,0000385
53				50	0	0,2720171	-1,318388	4	0,0000000

Overall session scores

User	Date	Time	Duration	MaxForce	Score	Endurance
3120@frailsa	06/09/2018	10:07:00	37,4	30	232	636
3120@frailsa	06/09/2018	10:07:32	26,8	30	129	280,5

Dynamic adaptability

	Force Analyzer		Red Wings			Simon		Memory			RailWay		Reflex		VPM Health data		
	Maximum force	Endurance	Maximum distance	Mean distance	Maximum force	Maximum sequence length	Mean sequence length	Last level solved	Last pair number solved	Mean hit percent	Mean distance reached	Mean score	Mean reaction time	Hit count	Mean BPM when walking	Mean HR when walking	Maximum strength
RedWings	Maximum required force	X	X			X									X	X	X
	Plane speed												X				
	Number of obstacles			X	X								X				
	Starting point			X	X												
Simon	Sequence speed											X					
	Starting level					X	X			X							
	Number of trees						X										
Memo	Starting stones number						X	X	X								
	Maximum allowed moves							X	X	X							
RailWay	Wagon speed										X	X	X				
	Number of obstacles										X	X	X				
	Number of coins										X	X	X				
Reflex	Pineapple disappear delay												X	X			
	Next pineapple time delta												X	X			

Memory Stone Number(%) = + **30%** Simon Mean Sequence Length
+ **50%** Last game hits
+ **20%** Mean game hits