

Theoretical background

E-Sports are a new sport activity involving athletes playing games highly competitively and for monetary rewards (Pedraza-Ramirez *et al.*, 2020). Among the psychological dimensions capable to improve performance in e-Sports, the “e-S.F.E.R.A. questionnaire” (Caputo *et al.*, 2022) detects the Activation (i.e. the motivation, pleasure and enjoyment to engage in an activity; Vercelli, 2005), which is a significant predictor of Engagement and Flow at Sport. Furthermore, considering that, for positive psychology, enjoyment “leads to personal growth and long-term happiness” (Seligman & Csikszentmihalyi, 2000, p. 12), this factor represents the basis on which daily training and good performance in e-Sport competitions are built.

Objective

This work shows correlations and regressions of the five e-S.F.E.R.A. dimensions (i.e. Synchrony, Strengths, Energy, Rhythm, Activation) on Engagement, Flow and Gameaholism (i.e. tendency to develop videogame addiction).

Method

Online self-report “e-S.F.E.R.A. questionnaire”

Results

Activation predicts Engagement and Flow, while it is not related to the Gameaholism.

Correlations

	1a	1b	1c	1d	1e	2a	2b	2c	2d	3a	3b	3c	3d	4
1a SINCRONIA	1													
1b (punti di) FORZA	.698**	1												
1c ENERGIA	.561**	.644**	1											
1d RITMO	.557**	.653**	.722**	1										
1e ATTIVAZIONE	.427**	.354**	.474**	.404**	1									
2a Flow SPORT ENJOYMENT	.422**	.405**	.352**	.338**	.506**	1								
2b Flow INTRINSIC MOTIVATION	.282**	.275**	.203**	.242**	.357**	.535**	1							
2c Flow ABSORPTION	.312**	.195**	.255**	.208**	.328**	.521**	.690**	1						
2d FLOW TOTALE	.390**	.331**	.309**	.301**	.455**	.775**	.884**	.886**	1					
3a Engagement VIGOR	.461**	.449**	.351**	.332**	.429**	.637**	.602**	.626**	.727**	1				
3b Engagement DEDICATION	.474**	.478**	.349**	.322**	.378**	.696**	.488**	.568**	.675**	.727**	1			
3c Engagement ABSORPTION	.371**	.291**	.220**	.217**	.399**	.563**	.708**	.839**	.838**	.780**	.683**	1		
3d ENGAGEMENT TOTALE	.478**	.444**	.335**	.318**	.444**	.695**	.666**	.755**	.828**	.919**	.883**	.914**	1	
4 GAMEAHOLISM	0.059	0.018	-.142*	-.0102	-.015	.193**	.160*	.246**	.235**	.303**	.265**	.346**	.338**	1

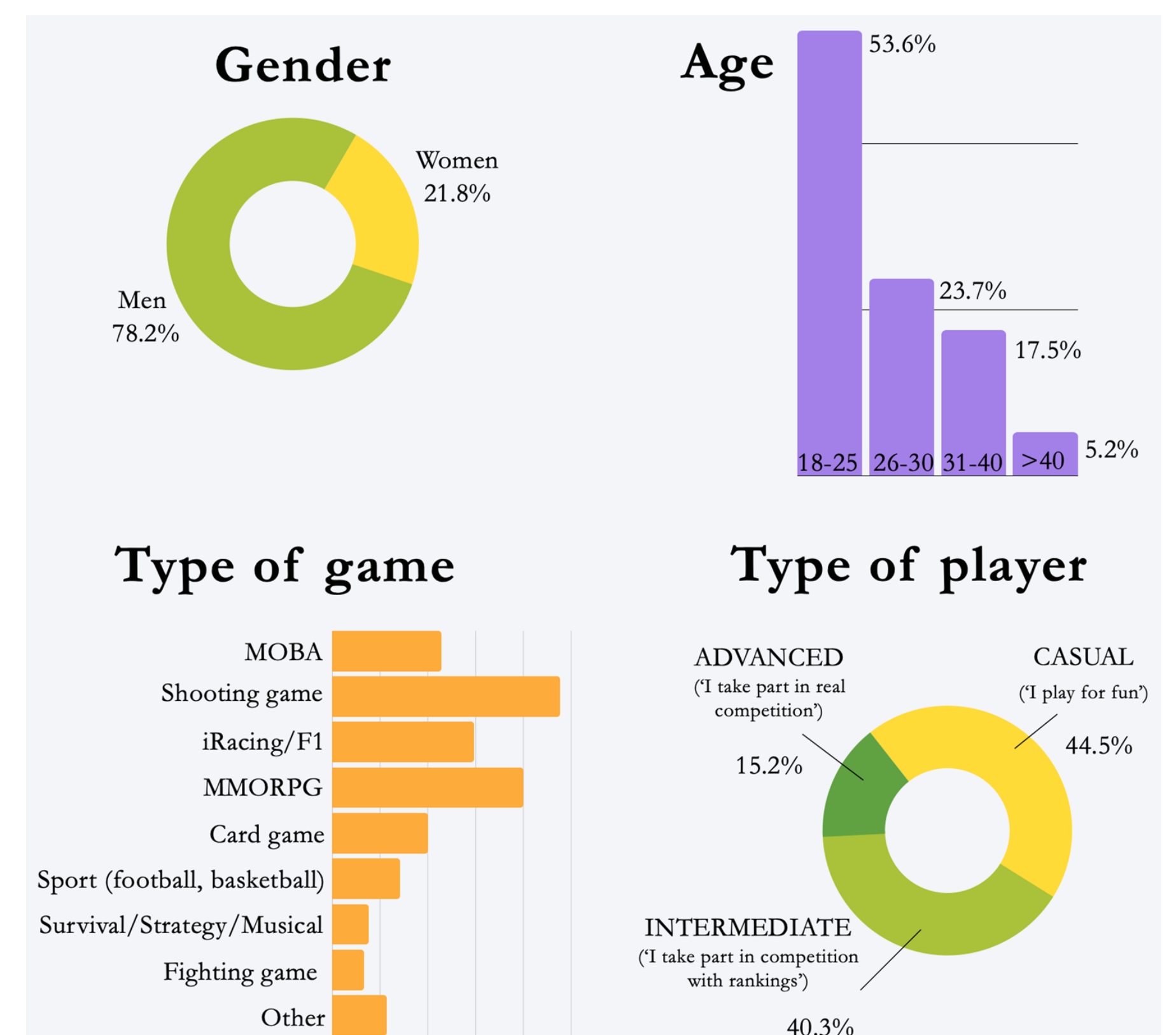
Regressions

	Engagement VIGOR	Engagement DEDICATION	Engagement ABSORPTION	Engagement TOTALE	Flow SPORT ENJOYMENT	Flow INTRINSIC MOTIVATION	Flow ABSORPTION	Flow TOTALE	GAME-AHOLISM
	β	β	β	β	β	β	β	β	β
SINCRONIA	.204*	.218*	.243**	.246**	.139	.084	.247**	.187*	.156
FORZA	.251**	.315**	.098	.239*	.187*	.147	-.105	.077	.130
ENERGIA	-.031	-.022	-.107	-.061	-.038	-.137	.089	-.030	-.252*
RITMO	-.038	-.077	-.038	-.056	.005	.075	-.016	.026	-.107
ATTIVAZIONE	.281***	.212**	.325***	.303***	.395***	.302***	.223**	.350***	.033

* p < .05; ** p < .01; *** p < .001

Sample

211 e-players completed the questionnaire



CONCLUSIONS

Limits

Cross-sectional study, convenience sampling method, not all considered games are e-Sport games.

Theoretical implications

The S.F.E.R.A. factors seem to be connected to more classical psychological dimensions. The model can be used specifically for e-sports performance.

Practical implications

The e-S.F.E.R.A. Questionnaire represents a tool that can be used by mental coach psychologists for the evaluation and monitoring of the S.F.E.R.A. psychological dimensions in the mental preparation of professional e-sporters.

References

- Caputo, A., Gabiano, M., Toscano, M., Cataldi, G., Drivet, S., Cerato, B., Vercelli, G., & Cortese, C. G. (2022). Psychology for Esports: development of the “E-S.F.E.R.A. Questionnaire” to detect players’ mental dimensions and improve performance in Esports competitions. Presented at the XXX A.I.P. Conference, Padova, IT.
- Pedraza-Ramirez, I., Musculus, L., Raab, M., & Laborde, S. (2020). Setting the scientific stage for esports psychology: A systematic review. *International Review of Sport and Exercise Psychology*, 13 (1), 319-352.
- Seligman, M. E. P. & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Vercelli, G. (2005). *Vincere con la mente*. Firenze: Ponte alle Grazie.

E – S.F.E.R.A. Questionnaire

SINCRONIA $\alpha = .77$	Pensieri e azioni coincidevano	ENERGIA $\alpha = .60$	Agivo in maniera grintosa
	Sentivo di avere tutto sotto controllo		Avevo la sensazione di dover gestire troppe cose
	Avevo in mente le azioni da svolgere “passo dopo passo”		Ho saputo regolare le mie forze
	Riuscivo a percepire senza sforzo i segnali che provenivano dalla situazione di gioco		Prima di iniziare la partita mi sentivo già stanco
Punti di FORZA $\alpha = .87$	Il mio pensiero era completamente focalizzato sull'azione	RITMO $\alpha = .76$	Riuscivo a regolare le mie energie per rendere al meglio
	Ero consapevole dei miei punti di forza		Ero impacciato nei movimenti
	Sapevo di essere perfettamente in grado di eseguire ogni mossa		Ho dedicato a ciascuna azione il tempo necessario
	È stato solo un caso se le cose sono andate bene		Ho fatto ogni cosa al momento opportuno
ATTIVAZIONE $\alpha = .81$	Sapevo di possedere le abilità necessarie per svolgere al meglio le mie azioni	ATTIVAZIONE $\alpha = .81$	Andavo avanti senza indecisioni
	Avevo piena fiducia nelle mie capacità		Sentivo di avere un ritmo non adeguato rispetto a come si stava sviluppando la partita
	Sapevo esattamente quali abilità impiegare nei diversi momenti		Mi chiedevo che senso avesse quello che facevo
	Sentivo di poter affrontare efficacemente situazioni e problemi inaspettati		Non avevo voglia di essere lì
	Mi sentivo in grado di raggiungere gli obiettivi		Non vedevo l'ora di iniziare
			Avrei preferito fare altro
			Non vedevo l'ora che finisse