BIG GAME: Immersive and Multidisciplinary STEM Learning through a Cooperative Story-Driven Game

https://big-game.eu-track.eu/

Selected data from the player preference survey

Table 1. Game genre preference

Genre	11-12 y.o. (N=78)	13-14 y.o. (N=60)	15-16 y.o. (N=113)	Mean total
Action and FPS	47.4	46.7	46	46.7
Adventure and puzzle	23.1	25	31.9	26.6
Role-playing games and MMOs	19.2	23.3	23	21.9
Strategy games and MOBAs	19.2	35	19.5	24.6
Simulation and sports	25.6	26.7	15	22.5
Party games	25.6	11.7	14.2	17.2
Board and pen-and-paper games	17.9	13.3	7.1	12.8
I don't play games	9	8.3	11.5	9.6

Table 2. Game device preference

Platform	11-12 y.o. (N=67)	13-14 y.o. (N=54)	15-16 y.o. (N=97)	Mean total
PC or game console	59.7	70.4	63.9	64.7
Smartphone or tablet	68.7	66.7	55.7	63.7

Table 3. Solo vs. social play

Play style	11-12 y.o. (N=71)	13-14 y.o. (N=55)	15-16 y.o. (N=100)	Mean total
Solo (single-player)	12.7	20	38	23.6
With other players, online	53.5	58.2	48	53.2
With other players, in the same room	33.8	20	14	22.6

Table 4. Fun aspects of games

Aspect	11-12 y.o. (N=71)	13-14 y.o. (N=55)	15-16 y.o. (N=100)	Mean total
Overcoming challenges and getting good at the game	60.6	70.9	45	58.8
Competing against other players	53.5	49.1	57	53.2
Experimenting and discovering new things	45.1	41.8	35	40.6
Creating and developing a character	38	43.6	30	37.2
Immersing myself in the story	19.7	27.3	36	27.7

Table 5. Preferred settings in games

Setting	11-12 y.o. (N=71)	13-14 y.o. (N=55)	15-16 y.o. (N=100)	Mean total
Real world, present-day	63.4	58.2	52	57.9
Real world, in the past	43.7	32.7	36	37.5
Alternate history, present-day (if something in history went differently)	31	32.7	30	31.2
Alternate history, in the past (e.g., steampunk)	4.2	27.3	19	16.8
Science fiction, near-future Earth	45.1	29.1	27	33.7
Science fiction, far-future (space colonisation, etc.)	28.2	38.2	25	30.5

Table 6. Concern about environmental issues (median values)

Issue	11-12 y.o. (N=78)	13-14 y.o. (N=60)	15-16 y.o. (N=113)	Mean total	Awareness (mean)
Water pollution	2.5	2	2	2	96.8
Air pollution	3	3	2	3	96.8
Land pollution	2	3	2	2	95.8
Light pollution	2	2	2	2	89.6
Climate change	3	3	2	3	95
Biodiversity loss	2	2	2	2	86.6
Deforestation	3	3	2	3	91
Total	2	3	2	2	92.1