

Information to Researchers

1. The administered questionnaire is only valid to define extremes of game play by category or video game genre; For example, contrasting action video game players (AVGPs) with non-video game players (NVGPs). It is **NOT** appropriate for continuous measure of weekly hours of video game play. Hourly reports are not reliable as sampled - see Green et al. (2017) for a discussion of this point
2. Video game genres as classified in the questionnaire keep evolving by integrating different game design mechanics. In the cognitive neuroscience literature, the term “action video game players” is used to refer to only first and third person shooters. Yet, it tends to now be more encompassing of other genres that also integrate some of the identified action mechanics into their game play. The AVGP criteria below reflect that shift. This state of affairs has several consequences.
 - a. From that point of view, be aware that it would not make sense to contrast AVGP as defined below to Action_RPG, or Sport/Driving or RTS/MOBA.
 - b. Some game titles have changed categories between their different releases (e.g. Warcraft). The experimenter should thus verify the exact classification of a specific video game *title AND version* on this wiki on game genres if unsure (e.g., Warcraft I, II and III in RTS, whereas World of Warcraft (IV) is an MMPORG. Link to the wiki : https://en.wikipedia.org/wiki/List_of_video_game_genres)
 - c. Fortnite can have different play modes :
 - Fornite *Battle Royale* and *Save the World* game modes fall under Action_First/Third
 - Fortnite *Creation* (“building”) game mode, (as well as Minecraft) fall under Turn Based Strategy/LifeSim/Puzzle

References :

Green, C. S., Kattner, F., Eichenbaum, A., Bediou, B., Adams, D. M., Mayer, R. E., & Bavelier, D. (2017). Playing Some Video Games but Not Others Is Related to Cognitives Abilities. *Psychological Science*, 28(5), 679-682.

NVGP criteria

All criteria MUST apply.

• **During** the Past Year

- (1) At most 0-1 hour per week for Action_First/Third

AND

- (2) At most 0-1 hour per week for Action_RPG/Adv.

AND

- (3) At most 0-1 hour per week for Sport/Driving

AND

- (4) At most 0-1 hour per week for RTS/MOBA

AND

- (5) At most 1-3 hours per week for each of the remaining game categories
(Non-Action_RPG/FANTASY, Turn Based Strategy/LifeSim/Puzzle, Music games and Other)

AND

- (6) *Using the following score (i.e. never=0, 0-1 hour=1, 1-3 hours=2, 3-5 hours=3, ...)*
Strictly less than 5 when ALL GAME GENRES are summed.

AND

• **Before** the Past Year

- (1) At most 0-1 hour per week for Action_ First/Third

AND

- (2) At most 0-1 hour per week for Action_RPG/Adv.

AND

- (3) At most 0-1 hour per week for Sport/Driving

AND

- (4) At most 0-1 hour per week for RTS/MOBA

AND

- (5) At most 1-3 hours per week for any of the remaining game categories
(Non-Action_RPG/FANTASY, Turn Based Strategy/LifeSim/Puzzle, Music games and Other)

AND

- (6) *Using the following score (i.e. never= 0, 0-1 hour= 1, 1-3 hours= 2, 3-5 hours= 3, ...)*
Strictly less than 5 when ALL GAME GENRES are summed.

AVGP criteria

Four options possible - All criteria MUST apply within each option.

OPTION 1. *Individuals who are heavy current action game players (First-person shooter, Third-person shooter, and / or action-RPG/adventure). They should also be low players of all other genres.*

Select for Heavy Current experience in Action games

- (1) (At least 5+ hours for Action_First/Third **during** past year
OR
At least 5+ hours for Action_RPG/Adv. **during** past year)

AND

Select for Low Current experience in all other games

- (2) At most 1-3 hours **during** past year on each game category listed:
Non-Action_RPG/FANTASY, Turn Based Strategy/LifeSim/Puzzle, Music games and Other (that is all other game categories **but** RTS/MOBA and Sport/Driving)

OR

OPTION 2. *Individuals who are currently medium action game players (First-person shooter, Third-person shooter, and or action-RPG/adventure), but in years prior to this year were heavy action game players. They should also be low players of all other genres.*

Select for Medium Current experience in Action games

- (1) (At least 3-5 hours for Action_First/Third **during** past year
OR
At least 3-5 hours for Action_RPG/Adv. **during** past year)

AND

Select for Heavy Past experience in Action games

- (2) (At least 5+ hours on Action_First/Third **before** past year
OR
At least 5+ hours for Action_RPG/Adv. **before** past year)

AND

Select for Low Current experience in all other games

- (3) At most 1-3 hours **during** past year on each game category listed:
Non-Action_RPG/FANTASY, Turn Based Strategy/LifeSim/Puzzle, Music games and Other (that is all other game categories **but** RTS/MOBA and Sport/Driving)

OR

OPTION 3. *Individuals who are currently medium Action game players (First-person shooter, Third-person shooter, and or action-RPG/adventure) and currently heavy Sports/Driving games players. They should also be low players of all other genres.*

Select for Medium Current experience in Action games

- (1) (At least 3-5 hours for Action_First/Third **during** past year
OR
At least 3-5 hours for Action_RPG/Adv. **during** past year)

AND

Select for Heavy Current experience in Sport/Driving games

- (2) At least 5+ hours in Sport/Driving **during** past year

AND

Select for Low Current experience in all other games

- (3) At most 1-3 hours on each remaining game category **during** past year:
Non-Action_RPG/FANTASY, Turn Based Strategy/LifeSim/Puzzle, Music games and Other (that is all other game categories **but** RTS/MOBA)

OR

OPTION 4. *Individuals who are currently medium Action game players (First-person shooter, Third-person shooter, and or action-RPG/adventure) and currently heavy RTS/MOBA games players. They should also be low players of all other genres.*

Select for Medium Current experience in Action games

- (1) (At least 3-5 hours for Action_First/Third **during** past year
OR
At least 3-5 hours for Action_RPG/Adv. **during** past year)

AND

Select for Heavy Current experience in RTS/MOBA games

- (2) At least 5+ hours in RTS/MOBA **during** past year

AND

Select for Low Current experience in all other games

- (3) At most 1-3 hours on each remaining game category **during** past year:
Non-Action_RPG/FANTASY, Turn Based Strategy/LifeSim/Puzzle, Music games and Other (that is all other game categories **but** Sport/Driving)

LOW Tweener criteria

While most studies in the literature have used NVGPs for training studies, these are nowadays so rare that “low tweeners” are also being considered as training participants. “Low tweeners” are selected for low action game experience AND for moderate experience in game play AND for non-expert experience in any game genre.

Select for low action

- (1) At most 0-1 hour of Action_First/Third **during** past year
AND
- (2) At most 0-1 hour of Action_RPG/Adv. **during** past year
AND
- (3) (At most 1-3 hours in Sport/Driving **during** past year **AND** at most 0-1 hour of RTS/MOBA **during** past year
OR
At most 0-1 hour of Sport/Driving **during** past year **AND** at most 1-3 hours in RTS/MOBA **during** past year)
AND
- (4) At most 1-3 hours of Action_First/Third **before** past year
AND
- (5) At most 1-3 hours of Action_RPG/Adv. **before** past year
AND
- (6) At most 3-5 hours of Sports/Driving **before** past year
AND
- (7) At most 3-5 hours of RTS/MOBA **before** past year

AND

Select for Moderate experience in game play

- (8) Do not qualify as a NVGP
AND
- (9) *Using the mean of all hourly categories (i.e. never= 0, 0-1 hour= 0.5, 1-3 hours= 2, 3-5 hours= 4, 5-10 hours= 7.5, +10 hours= 15.*
Sum of ALL GAME GENRES **during** past year is greater than 1 hour and less than or equal to 10 hours
OR
(Sum of ALL GAME GENRES **during** past year is less than or equal to 1 hour
AND
Sum of ALL GAME GENRES **before** past year is greater than or equal to 5 hours ;
OR 2 hours if not enough participants)

AND

Select for Non-expert experience in any game genre

- (10) At most 3-5 hours for each of the game genres listed in the VG questionnaire **during** past year