



# Dr. Alicia Sanchez & Dr. Clint Bowers

## Top 10 Research Findings in Games





# Top 10 Research Findings

1 - Violence doesn't motivate gameplay - appeals more to players who are disproportionately aggressive but just barely. Aggressive post game behavior most often linked with frustrating play based on a basic needs satisfaction model

Przbylski, A. K., Rigby, C. S., & Ryan, R. M. (2010). Motivational Model of Engagement. *Review of General Psychology*, 14(2), pp. 154-166.



# Top 10 Research Findings

2- Playing prosocial games enhances prosocial behavior.

Greitemeyer, T. & Osswald, S. (2010). Effects of Prosocial Video Games on Prosocial Behavior. *Journal of Personality and Social Psychology*, 98(2), pp211-221.



# Top 10 Research Findings

3- Training using games can reduce the gender gap in spatial ability

Spence, I. & Feng, J. (2010). Video Games and Spatial Cognition .  
Review of General Psychology, 14(2), 92-104.



# Top 10 Research Findings

4- Video game experiences are associated with cognitive flexibility tasks such as task switching

Colzato, L. S., van Leeuwen, P. J. A., van den Wildenberg, W. P. M., & Hommel, B. (2010). DOOM'd to switch: Superior cognitive flexibility in players of first person shooters. *Frontiers in Psychology*, 1(8), pp. 1-4.



# Top 10 Research Findings

5 - Action games elicit enhanced visual attention (ability to select important visual cues and suppress non important cues)

Hubert-Wallender, , B., Green, C. S., & Bavelier, D. (2010). Stretching the limits of visual attention: The case of action video games. *Wires Cognitive Science Focus Article*, John Wiley & Sons, Ltd.



# Top 10 Research Findings

6- Popular "brain trainers" only improve performance on practiced tasks

Owen, A. M., Hampshire, A., Grahn, J. A., Stenton, R., Dajani, S., Burns, A. S., Howard, R. J., & Ballard, C. G. (2010). Putting Brain Training to the test. *Nature*, 465(10), pp. 775-778.



# Top 10 Research Findings

7 – Nintendo Wii ability predicts laparoscopic ability.

Badurdeen, S., Abdul-Samad, O., Story, G., Wilson, C., Down, S., & Harris, A. (2010). Nintendo Wii video-gaming ability predicts laparoscopic skill. *Surgical Endoscopy*, 24(8), pp. 1824-1828.







# Top 10 Research Findings

8- Difficulty levels in games should increase up and down, not down down and up and a medium rate of change is best for player immersion

Qin, H. Rau, P. P., & Salvendy, G. (2010). Effects of different scenarios of game difficulty on player immersion. *Interacting with Computers*, 22, pp. 230-239.



# Top 10 Research Findings

9- Whether or not a player believe a game character are controlled by humans alters their primitive responses to game play and leads to more thoughtful evaluation of their experiences

Lim, S. & Reeves, B. (2010). Computer agents versus avatars: Responses to interactive game characters controlled by a computer or other player. *International Journal of Human Computer Studies*, 68, pp. 57-68.



# Top 10 Research Findings

10- Sounds (feedback related) and music led to reports of better gameplay experiences.

Nacke, L. E., Grimshaw, M. N. & Lindley, C. A. (2010). More than a feeling: Measurement of sonic user experience and psychophysiology in the first-person shooter game. *Interacting with Computers*, 22, pp. 336-343.

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