



Maanpuolustuskorkeakoulu

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**Too much digital stimulation make
our kids stupid**



Puolustusvoimat

Försvarsmakten • The Finnish Defence Forces



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Video game classification [1]

This categorization developed by Funk and Buchman:

1. General entertainment (no fighting or destruction),
2. Educational (learning or problem solving),
3. Fantasy violence (cartoon characters that must fight or destroy things, and risk being killed, in order to achieve a goal),
4. Human violence (like fantasy violence, but with human rather than cartoon characters),
5. Nonviolent sports (no fighting or destruction), and
6. Sports violence (fighting or destruction involved)





Definitions

- Screen time: Time spent using a device such as a computer, television, or games console.
- Cumulative screen time: Time spend altogether.





Screen time vs. physical activity [2]

- Some studies have identified screen-based behaviors to be positively associated with overweight, obesity and metabolic risk among children and adolescents.
- Exceeding 2 hours of daily total screen-time was associated with less physical activity for both boys and girls.
- Baltic countries had the highest prevalence of high use for cumulative screen-time and all the individual screen-based behaviors, although the prevalence of high PC-use was the same in the US (22%).
- Nordic countries reported less high-use of TV and were together with the US adolescents relatively less likely to spend more than 2 hrs daily playing PC/video games.





Screen time vs. sleeping [3]

- Children who use lot of screen time with television, gaming computer or with Internet go to bed significantly later on weekdays and weekend days and got up significantly later on weekend days.
- These children are reported higher levels of tiredness.
- Going out less is also significantly related to high use of screen time.
- Media use is associated with sleep patterns in a negative way.
- Structural elements such as presence of media appliances in a child's bedroom can be indicators of disturbed sleep patterns.
- Unstructured activities, which do not have clear starting and ending points such as digital media might be the real problem





Playing video games vs. reading and homework [4]

- On average, gamers played for an hour on the weekdays and an hour and a half on the weekends.
- Compared with non-gamers, adolescent gamers spent 30% less time reading and 34% less time doing homework.
- Among gamers (both genders), time spent playing video games without parents or friends was negatively related to time spent with parents and friends in other activities.
- Findings suggest that playing video games may have different social implications for girls than for boys.





Learning and games [5]

- Good computer and video games are learning machines.
- If a game cannot be learned and even mastered at a certain level, it won't get played by enough people, and the company that makes it will go broke.
- Good learning in games is a capitalist-driven Darwinian process of selection of the fittest.
- Problem: How to get people, often young people, to learn and master something that is long and challenging and enjoy it.





Learning and games [5]

- All learning involves playing a character. In a science classroom, learning works best if students think, act, and value like scientists.
- Games can show us how to get people to invest in new identities or roles, which can, in turn, become powerful motivators for new and deep learning in classrooms and workplaces.
- If players play in massive multiplayer games, they often collaborate in teams, each using a different, but overlapping, set of skills, and share knowledge, skills, and values with others both inside the game and on various Internet sites.
- MOOC courses





History of "Stupid" games [6]

- Games tend to reflect the societies in which they are created and played, like Monopoly (1930, Depression), Risk (1950, Cold-War) and Twister (1960, sexual revolution), Tetris (1984, bureaucracy, work with no aim or end), Angry Birds (2009, new Tetris).
- Long history of stupid games: Dice are older than recorded history, Ancient Egyptians, board game called Senet, rock-paper-scissors, tick-tack-toe, checkers, dominoes and solitaire.





What is new in "Stupid" games [6]

- Old "stupid" games involved face2face interaction with an another human.
- Nowadays we can play them almost accidentally.
- 2007, the iPhone appeared. Games are now much easier to develop and easier to distribute.
- Independent game designers nowadays have a way to reach everyone — not just hard-core gamers, but their mothers, their mailmen and their college professors.
- Everyone is nowadays carrying a sophisticated game console with them, all the time, in their pockets or their purses.





Conclusions

- For better or for worse, the parade of digital technology is moving forward.
- Educational technologists can choose to join those embracing more expansive views of research and pedagogy or stay on the sidelines as the 21st century marches ahead.
- Good learning game would give you all kinds of opportunities to improve yourself, makes your mind stronger like a muscle 😊





References

1. STRASBURGER, Victor C.; WILSON, Barbara J.; JORDAN, Amy B. *Children, adolescents, and the media*. Sage, 2009.
2. MELKEVIK, Ole, et al. Is spending time in screen-based sedentary behaviors associated with less physical activity: a cross national investigation. *International Journal of Behavioral Nutrition and Physical Activity*, 2010, 7.1: 46.
3. VAN DEN BULCK, Jan, et al. Television viewing, computer game playing, and Internet use and self-reported time to bed and time out of bed in secondary-school children. *SLEEP-NEW YORK THEN WESTCHESTER-*, 2004, 27.1: 101-104.





References

4. CUMMINGS, Hope M.; VANDEWATER, Elizabeth A. Relation of adolescent video game play to time spent in other activities. *Archives of pediatrics & adolescent medicine*, 2007, 161.7: 684-689.
5. GEE, James Paul. What video games have to teach us about learning and literacy. *Computers in Entertainment (CIE)*, 2003, 1.1: 20-20.
6. ANDERSON, Sam. Just one more game... Angry Birds, Farmville, and other hyperaddictive “stupid games.”. *New York Times Sunday Magazine*, 2012.



