Gaming isn't a *Complete* Waste of Time

Video games are frowned upon by parents as time-wasters, and worse, some education experts think that these games corrupt the brain. The media and some experts blame playing violent video games as the reason why some young people become violent or commit extreme anti-social behavior. But many scientists and psychologists find that video games can actually have many benefits – the main one is making kids smart. Video games may actually teach kids high-level thinking skills that they will need in the future. Playing video games change the brain's physical structure the same way as do learning to read, playing the piano, or navigating using a map. Much like exercise can build muscle, the powerful combination of concentration and rewarding surges of neurotransmitters like dopamine strengthen neural circuits that can build the brain.
In many video games, the skills required to win involve abstract and high level thinking. These skills are not even taught at school. Some of the mental skills enhanced by video games include:

1. **Following instructions** – let's face it… we've all spent hours trying to complete a single quest before.
2. **Problem solving and logic** – games such as The Incredible Machine, Angry Birds or Cut The Rope, trains your brain to come up with creative ways to solve puzzles and other problems in short bursts.
3. **Hand-eye coordination, fine motor and spatial skills.** In shooting games, the character may be running and shooting at the same time. This requires the real-world player to keep track of the position of the character, where he/she is heading, their speed, where the gun is aiming, if the gunfire is hitting the enemy, and so on. All these factors need to be taken into account, and then the player must then coordinate the brain's interpretation and reaction with the movement in his hands and fingertips. This process requires a great deal of eye-hand coordination and visual-spatial ability to be successful. Research also suggests that people can learn iconic, spatial, and visual attention skills from video games. There have been even studies with adults showing that experience with video games is related to better surgical skills.
4. **Planning, resource management and logistics.** The player learns to manage resources that are limited, and decide the best use of resources, the same way as in real life. This skill is honed in strategy games such as SimCity, Age of Empires, and Railroad Tycoon. Notably, The American Planning Association, the trade association of urban planners and Maxis, the game creator, have claimed that SimCity has inspired a lot of its players to take a career in urban planning and architecture.
5. **Multitasking, simultaneous tracking of many shifting variables and managing multiple objectives.** In strategy games, for instance, while developing a city, an unexpected surprise like an enemy might emerge. This forces the player to be flexible and quickly change tactics.

6. **Strategy and anticipation** – Often, gamers are forced to anticipate the next move of their opponent based on previous encounters under similar circumstances.
7. **Developing reading and math skills** – The young gamer reads to get instructions, follow storylines of games, and get information from the game texts. Also, using math skills is important to win in many games that involve quantitative analysis e.g. calculating optimal DPS etc.
8. **Perseverance** – In higher levels of a game, the player usually fails the first time around, but he keeps on trying until he succeeds and move on to the next level.
9. **Pattern recognition** – Games have internal logic in them, and the player figures it out by recognizing patterns and exploiting them.
10. **Inductive reasoning and hypothesis testing** – For example, the gamer must constantly try out combinations of weapons and powers to use to defeat an enemy. If one does not work, he changes hypothesis and try the next one.
11. **Mapping** – The gamer must use in-game maps or build maps in his head to navigate around virtual worlds.
12. **Memory** – Playing first person shooter games such as Call of Duty and Battlefield series enables the player to effectively judge what information should be stored (i.e. locations) in his working memory and what can be discarded considering the task at hand, according to a study published in the Psychological Research.
13. **Concentration** – A high level of concentration is crucial when maintaining an optimal gaming experience.
14. **Improved ability to rapidly and accurately recognize visual information** – people who play video games on a regular basis are better at registering visual data and are therefore quicker visual learners. They are also more resistant to perceptual interference, and are therefore able to learn for a longer period of time in distracting environments.
15. **Taking risks** – Winning in any game involves a player's courage to take risks. Most games do not reward players who play safely.
16. **How to respond to challenges** – games constantly confront the player with new challenges that need to be dealt with efficiently.
17. **How to respond to frustrations** – challenges and goals are never easy to complete, thus the player must be able to cope with frustrations along the way (unless they are rage-quitters).
18. **Teamwork and cooperation when played with others** – Many multiplayer games such as Team Fortress 2 involve cooperation with other online players in order to win. These games encourage players to make the most of their individual skills to contribute to the team.

In conclusion, games can be highly effective tools regarding brain training. It is important when playing a game to consider what skills it requires and to look for where other skills can be applied – often players aren't initially aware of the strategic potential within a game. Additionally, games are fun and exciting; I hope you have enjoyed this one.