Critique Essay: **5 Ways to Help Your Brain Learn Better**  
  
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**Introduction**  
 In the article “5 Ways to Help Your Brain Learn Better”, published in 2024 by Jarden Cooney Horvath, Horvath responds to Sweden’s education system changes that prioritize traditional teaching methods. Horvath argues that traditional teaching methods are more effective than digital teaching methods. The author makes a few assumptions that require consideration. However, the strength of the arguments far outweighs any oversights or shortcomings.

Horvath’s presentation of his arguments is well structured and includes relevant scientific data to validate each argument as he provides the readers with knowledge about brain processes and human tendencies.

**Summary**  
 Horvath connects Sweden’s neuroscientific research with five main reasons to argue his stance. These reasons include the necessity for empathy to be present for effective learning, the importance of a solid knowledge base to have a creative presence in any task, the consequence of multitasking and the importance of undivided attention, the significance of spatial memory cues triggered by physical books rather than digital mediums of text, and the effectiveness of flashcards to facilitate strong memorization. The article ends with an explanation that digital tools have a place in education, but that the brain has specific processes that only traditional learning methods can effectively work with.

**Critical Response**

**Reasoning**

Horvath starts his first argument with the necessity for empathy to be present for effective learning. He lays out a clear discrepancy on the effectiveness of learning between human-to-human interactions and artificial intelligence-to-human interactions that Horvath sufficiently supports. The main support involved the hormone oxytocin and which is only present in living beings. His statement, “it is now clear that oxytocin release can be triggered via purely psychological means” (Horvath, 2024), provides a segue into the specifics of the hormone. The fact that oxytocin is involved in the neural coupling phenomenon creates an impossible retort for the opposing argument as a digital tool will never have the biological requirements to produce the oxytocin. The point ends with the consequences with the absence of empathy in online learning programs. Horvath states that this lack of empathy is causing “85 percent of tuition-free students and over 50 percent of fee-paying students” (Horvath, 2024) to never finish their programs. The impossibility for digital tools to replicate empathy creates an irrefutable point toward the superiority of traditional teaching methods.   
  
 Horvath continues with the importance of a solid knowledge base to have a creative presence in any task. He successfully challenges digital tools, such as AI, by explaining the necessity for memorization and learning. While AI can provide information quickly, Horvath explains that “information is largely unusable until it is deeply encoded and organized within a person’s prior knowledge structures” (Horvath, 2024). He concludes his argument concludes his argument by contrasting the efficient memory encoding that traditional learning methods provide with the limitations of digital tools.

To combat the dangers of digital tools in regard to the success of learning, Horvath discusses the consequences of multitasking and the importance of undivided attention. Horvath highlights a key function that the lateral prefrontal cortex performs which provides excellent support against the use of digital tools while learning. He states, “Jumping between tasks […] incurs three significant costs” (Horvath, 2024). The three significant costs are time inefficiency, memory accuracy, and the ability to encode memories. He furthers by stating, “Multitasking is one of the worst things human beings can do for learning and memory” (Horvath, 2024). Due to the nature of technological devices providing easy access to distracting activities, such as social media, which promote the switching between tasks, creates a clear example of how detrimental digital tools are for learning.

Additionally, Horvath uses books to exemplify the significance of spatial memory cues triggered by physical books rather than digital mediums of text. First, he leads us into an understanding of how the hippocampus works to encode “the spatial layout […] and our physical relationship” (Horvath, 2024) with objects. He connects the hippocampus’ functional capabilities to how spatial layout is essential to forming new memories. He then provides a strong example that we can relate to: “You may have noticed that after reading from physical media, you can typically recall that a particular passage of interest is ‘about halfway through the book on the bottom, right-hand page’” (Horvath, 2024). As spatial memory is something we all have experienced as humans, this validates his argument for traditional learning tools, in this case physical books. Horvath strengthens his point by revealing how digital tools cannot trigger a spatial cue to recall a memory because of digitized content being impermanent. This creates a clear contrast between the effectiveness of traditional tools and digital tools in his argument’s favour.

Horvath concludes his argument with the effectiveness of flashcards to facilitate strong memorization. He mentions how flash cards “stimulate recall” (Horvath, 2024), “guard against the malleability of memory” (Horvath, 2024) and assist learning. Effective examples are used to support each point including references to schemata, a map of neurons in human brains that hold memories in a web like fashion, and its role in storing similar facts close to each other.

**Fairness**

The article is fair in its presentation of traditional tools and digital tools. While traditional learning methods and why they are superior is the focus of the article, he supports the downfalls of digital tools with survey data and neurobiological findings. For example, he mentions the consequences of multitasking and how “when using a laptop during class, learners typically spend 38 minutes of every hour off-task” (Horvath, 2024). Horvath also gives a fair display of learning in a broader sense. He speaks about the emotional side of learning by mentioning the importance of empathy as well as the criticality of focused attention, spatial layout, and recall all while using science to support his claims.

**Assumptions**

The article makes a few assumptions that should be considered. First, it assumes that everyone learns in the same way and that empathy is important for all people. Different effective learning styles or strategies are not mentioned. Some people learn better when listening to content or by viewing visual components such as diagrams and videos. A physical learning tool does not produce any sound without a digital component so students’ learning could be hindered in the cases that the student has an auditory or kinesthetic learning style. Another assumption is that technology will not evolve to become more effective at providing spatial cues like physical books do. It is possible that these spatial cues are already occurring with people who use devices that are like a book due to the rapid advancement of technology, but there have just not been any formal studies performed to back this up yet. Horvath’s article also assumes that multitasking is always a hindrance to learning. This may be true in many cases, but multitasking could be beneficial when a skill requiring multiple simultaneous tasks is being learned. For example, learning to play piano by reading and/or listening to music. The music’s notes would have to be interpreted into a letter, for example ‘F#’, and the hand would have to be moved to F# on the keys.

**Conclusion**

The arguments that Jarden Cooney Horvath presented in “5 Ways to Help Your Brain Learn Better” effectively support his claim that that traditional learning methods are more effective than digital teaching methods. He backs his points with effective learning strategies supported by scientific evidence and plausible examples. He was fair in arguing why traditional learning methods were superior, but did not address the possibility of variance between people’s learning styles, the potential for growth in technology, and the case in which multitasking might be effective for learning. Overall, Horvath has provided readers with knowledge about traditional learning methods that, in most cases, are more effective than digital learning methods.

**References**

Jared Cooney Horvath Ph.D., M.Ed. [Psychology Today]. (2024, July 2). 5 Ways to Help Your Brain Learn Better. https://www.psychologytoday.com/ca/articles/202407/5-ways-to-help-your-brain-learn-better