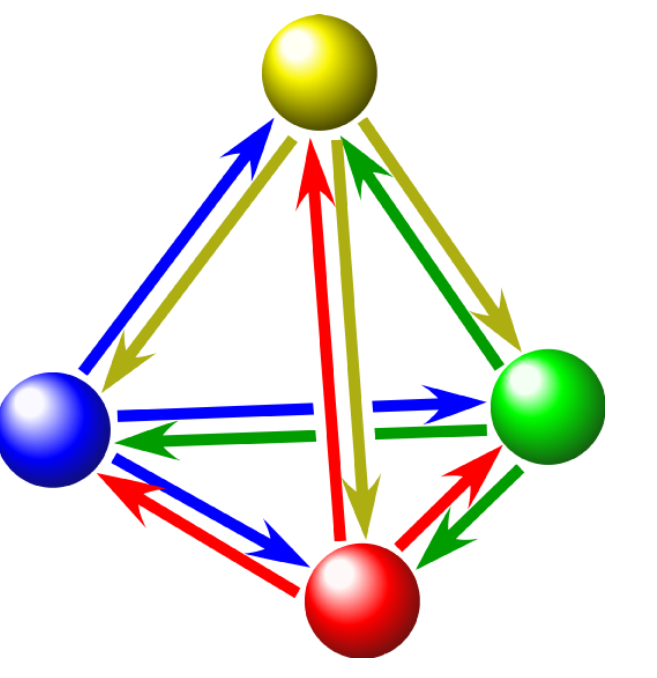




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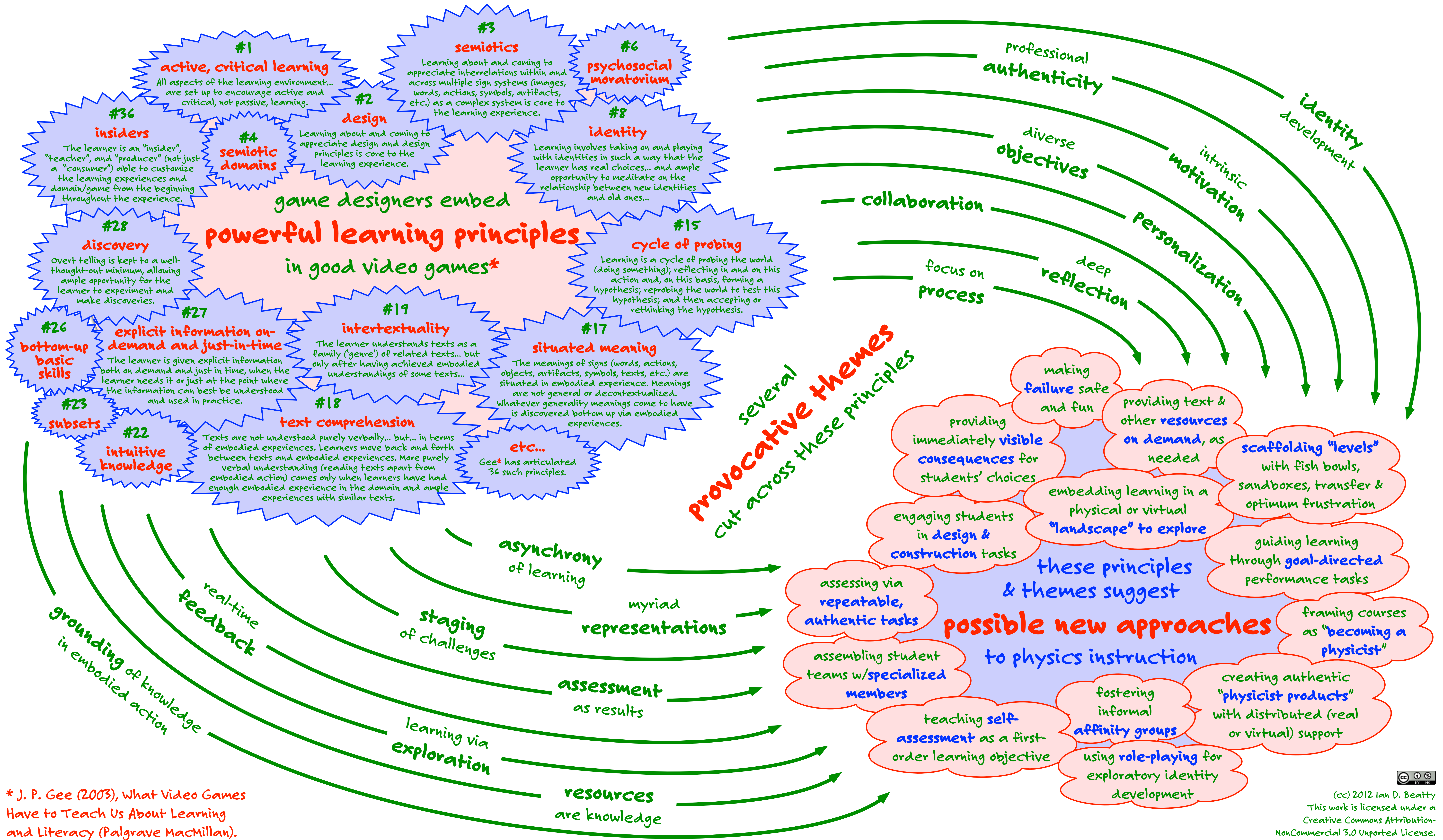
# IMPROVING PHYSICS INSTRUCTION

## BY ANALYZING VIDEO GAMES



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Good video games are in fact highly optimized learning systems, carefully engineered to keep players engaged for long periods of time while they develop and refine skills, explore and become facile navigating novel and often bizarre environments, overcome increasingly difficult challenges at the threshold of their abilities, and piece together understanding of a complex and initially mysterious back-story. (Does this sound at all like learning quantum mechanics?) Studying video games can provide PER with some fresh new ideas...



\* J. P. Gee (2003), What Video Games Have to Teach Us About Learning and Literacy (Palgrave MacMillan).