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CYGAMES™

PRESENTS

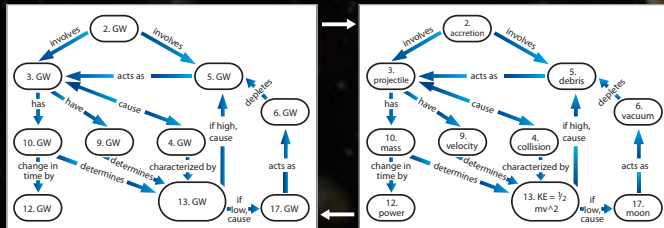
CyGames— A FORMULA FOR CYBERLEARNING AND ASSESSMENT – Makes Learning More Intuitive

METHOD

Translates expert knowledge into procedural gameplay.

The CyGames approach to instructional game design and assessment aligns the game system, gameplay, and game goal with a targeted learning domain through applied cognitive science analogical reasoning theory (Reese, 2007, 2008, 2009). *Selene* is a CyGames learning environment.

Player Maps from Game World to Target



Designer Maps from Target to Game World

CyGames = Alignment

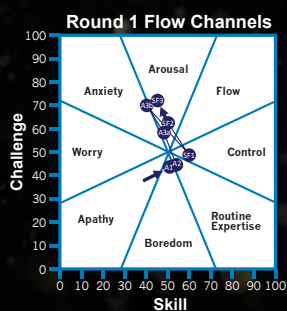
Content

- Game goals
- Game system
- Game mechanics
- Gameplay

CyGames guide players to discover and apply knowledge. Thus, the CyGames measure of player progress toward the game goal, the Timed Report, captures player's growing knowledge of that domain.

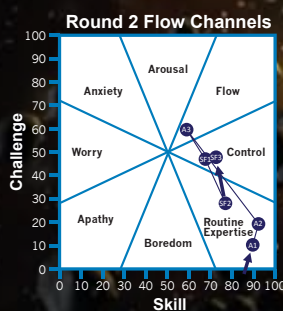
MOTIVATION & RESULTS

CyGames uses gameplay and game goals to motivate learning. Flow and the seven other channels of experience (Csikszentmihalyi, 2008) profile affective engagement. CyGames measures players' flow at a randomly selected, pre-determined time within every five-minute interval. CyGames *Selene* players experience the positive states that lead to flow and cause motivation.



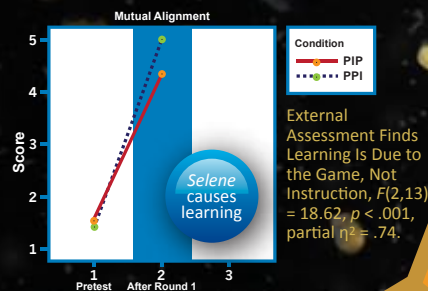
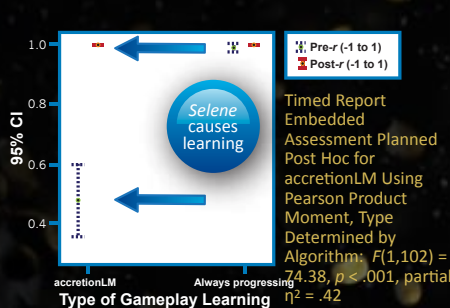
Learning should occur within a state of arousal, and *Selene* learning does.

Round 2 players experience the positive states of flow, expertise (due to round 1 learning), and control.



LEARNING & RESULTS

Empirical research shows: Timed Report, a CyGames embedded assessment, is a sensitive measure of learning; e.g., the learning moment explains 95 percent of the variance in exemplar players' Timed Report progress (Reese & Tabachnick, 2010).



BONUS!

Includes almost 15 minutes of inspirational video instruction by acclaimed lunar scientist Dr. Charles A. Wood

Selene

A Lunar Construction Game

BUILD THE MOON AND LEARN THROUGH ENGAGING GAMEPLAY

Selene players **construct the Earth's Moon, then pepper it with impact craters and flood it with lava flows.**

Empirical research shows:
Selene causes learning.
Selene measures learning.

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