

The background of the slide is a dark blue sky with stylized, pixelated clouds. In the foreground, there is a dark green ground line with several green bushes and two green pipes. A single brown brick block is floating in the air above the ground.

What makes things fun to learn?

Heuristics for Designing Instructional Computer Games

Author: Thomas W. Malone
Year: 1980

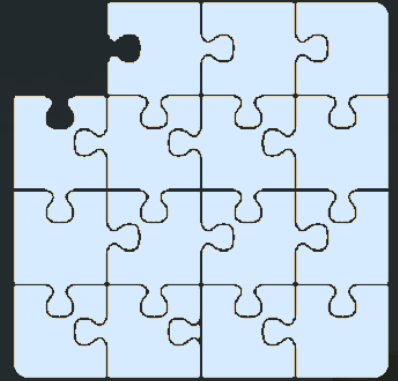
Challenge



Fantasy



Curiosity



Challenge

Fantasy

Curiosity

- Goal
 - Simple games: provide obvious goals
 - Complex: let players create goals
 - Practical or fantasy-related
 - Performance feedback
- Uncertainty
 - Variable difficulty level
 - Multiple level goals
 - Hidden information
 - Randomness



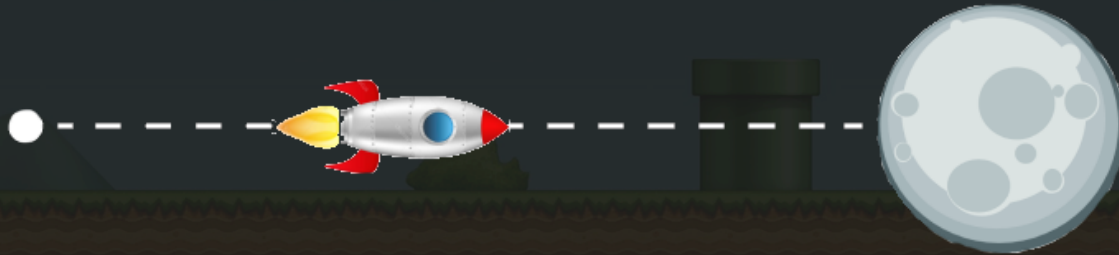
Challenge

Fantasy

Curiosity

- Extrinsic fantasy (Utenforliggende)
 - Domain-independent: the skill does not depend on the fantasy

$$2+2 = \underline{\quad}$$



Challenge

Fantasy

Curiosity

- Intrinsic fantasy (Iboende)
 - Domain-dependent: the fantasy depends on the skill and vice versa
 - Preferred

$$4 \cdot 6 = 22$$

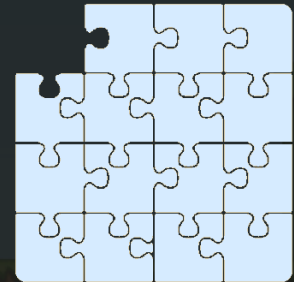


Challenge

- Motivation to learn
- Optimal complexity in game environments
- Sensory curiosity
 - Audio and visual effects
 - Decoration, reward, or fantasy enhancement
- Cognitive curiosity
 - Incomplete structure or knowledge
- Informative feedback

Fantasy

Curiosity



Questions?

