

COSC 442:
Mobile Educational Game
Development

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Instructional Design

- The creation of “instructional experiences which make the acquisition of knowledge and skill more efficient, effective, and appealing.” (Merrill et al. 1996)
- Studies:
 - Learning processes and individual learning styles
 - Curriculum design
 - Motivation theory
 - Learning outcomes and assessment methods
 - Instructional and educational technology

Schools of Thought

•Methods:

- Lecture
- Drill and Practice
- Rote learning
- Multiple choice tests

Behaviorism

Learner is passive: learns via external processes i.e. positive reinforcement

Cognitivism

Learning goes beyond external: is an internal process - short & long term memory

•Methods:

- Lecture
- Visual tools: mind maps, charts etc to facilitate memorization for learning
- Multiple choice & essay assessment

Image from <http://pinterest.com>

Schools of Thought

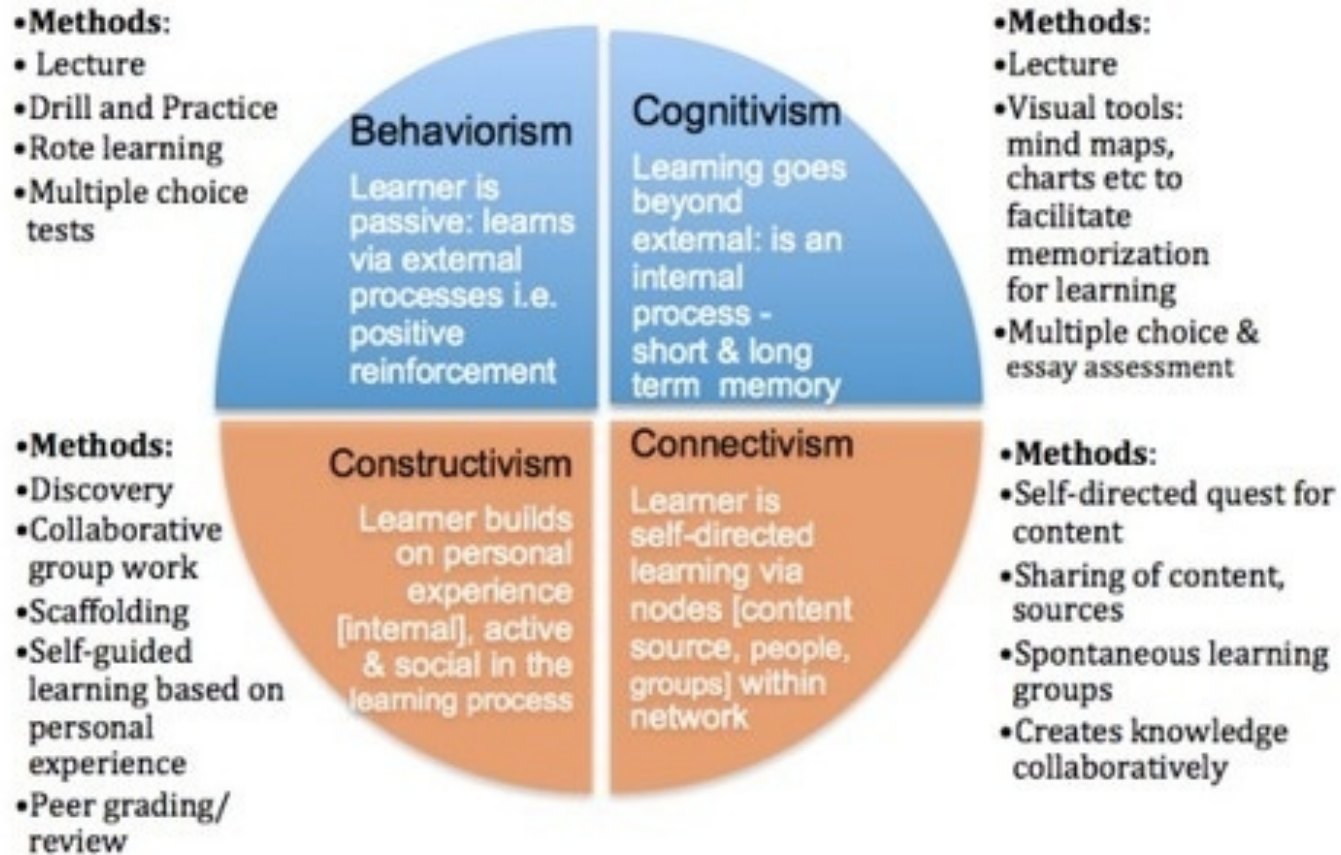


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Gagne's Events of Instruction (1965)

- Shares the behaviourist approach
- Focuses on learning outcomes
- Design process:
 - Define overall goals and learning objectives
 - Implement the nine events
 - Adapt to fit content and student backgrounds

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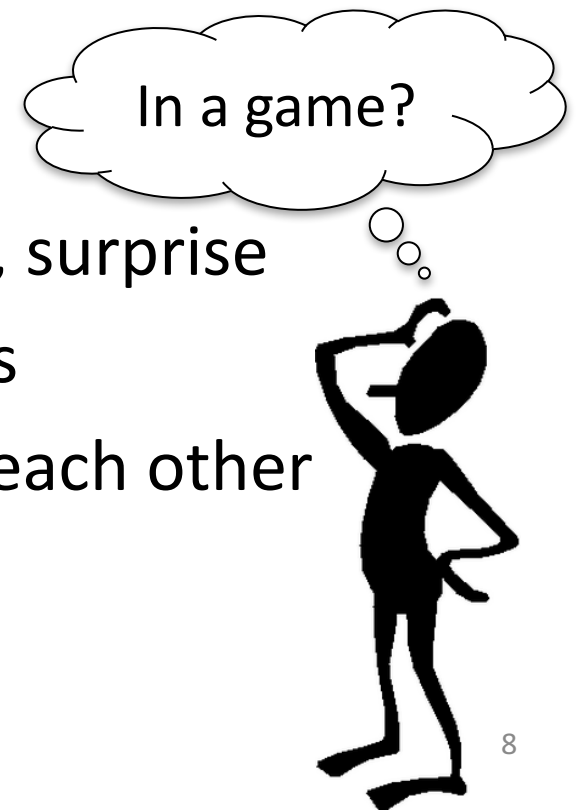
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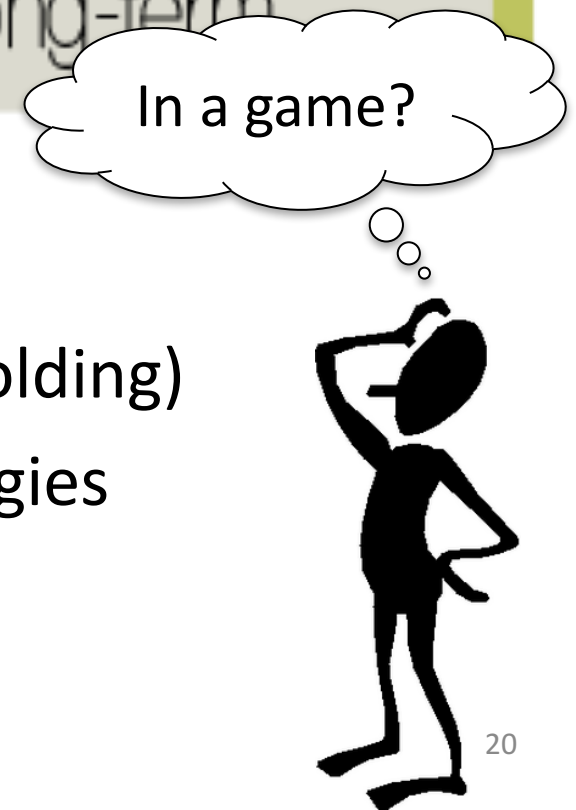
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 4. Present new material
 5. Provide learner guidance
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Applicable
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Framework Comparison

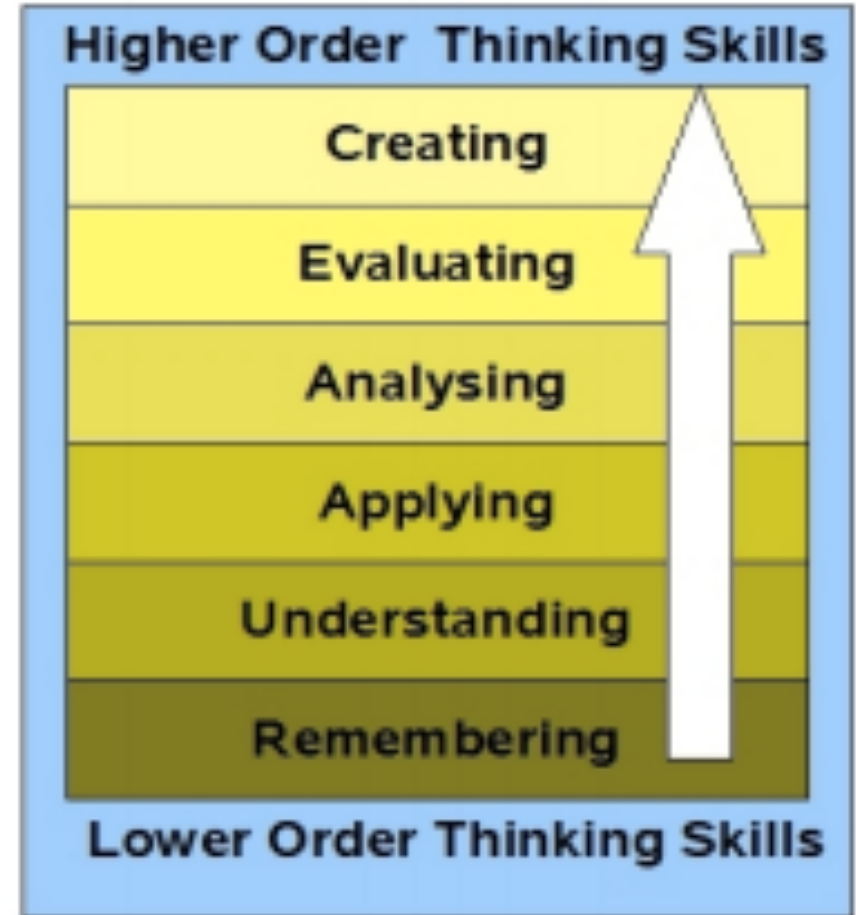
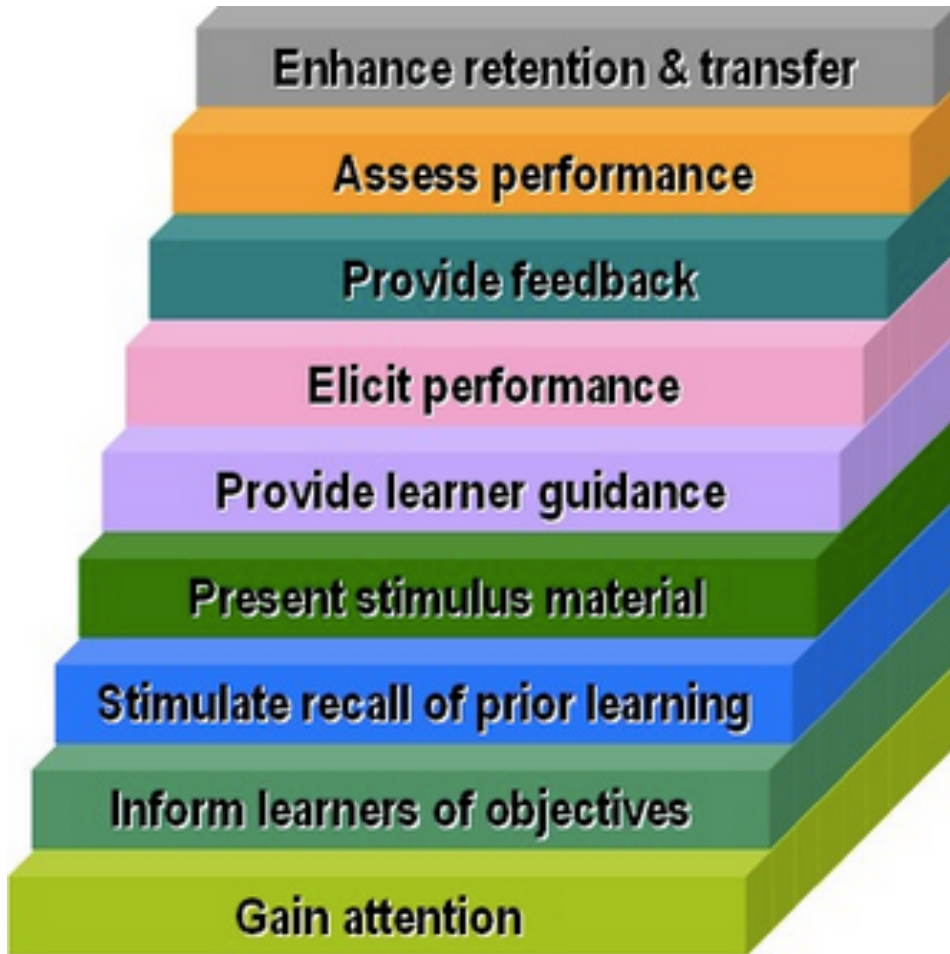
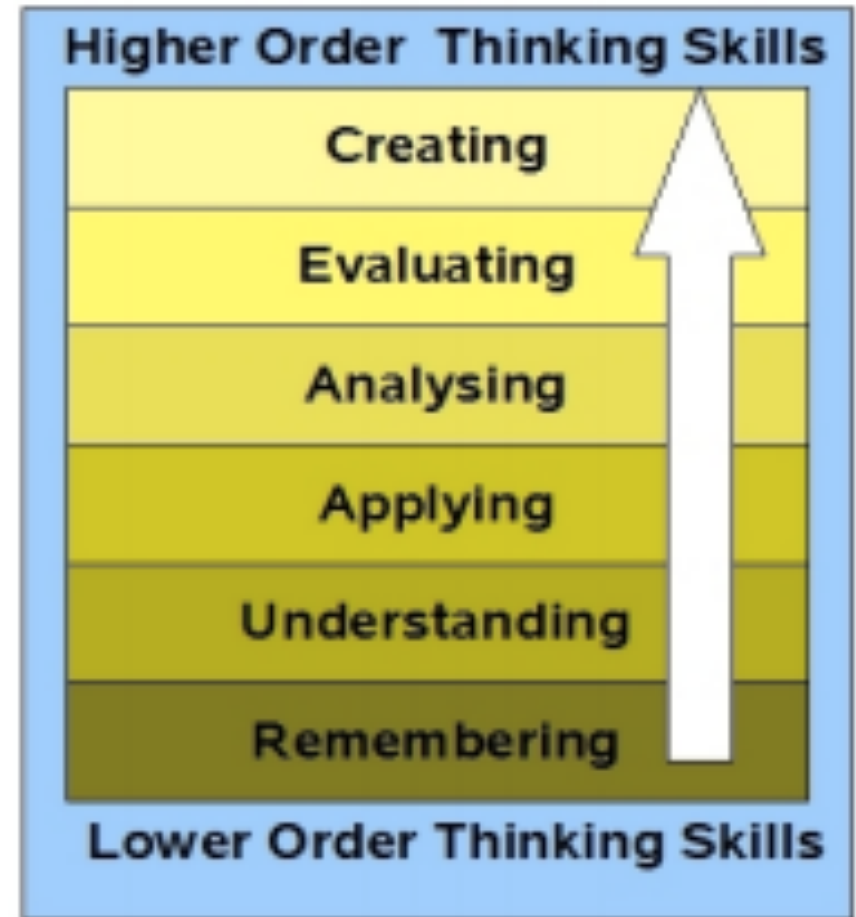
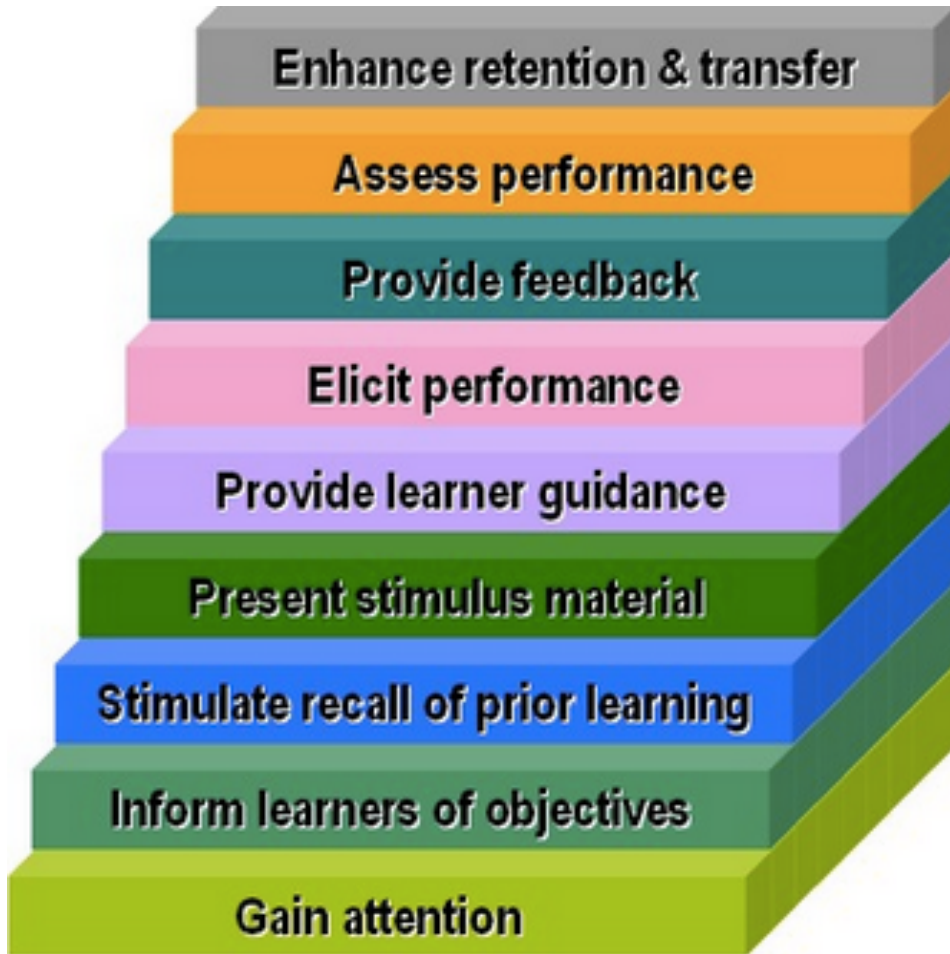


Image from <http://effectiveinstructionaldesign.blogspot.ca/>

Framework Comparison



Combine to develop engaging and meaningful activities

Batman Meets Gagne

- Research paper on application of Gagne's 9 events in commercial games
- See separate notes

Design Activity

- How should game activities be designed to model these nine events *in conjunction with* the Bloom's taxonomy?
 - Retrieve activities from last class
 - Unfold them: what will the user experience be?
 - Sequential story
 - Screenshots or text bullet points
 - Insert at least 3 of the “9 events”
 - Submit by end of class