Moving Beyond the Talk: Let the Games Begin

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The Talk

- Gaming & Simulations adds value to instruction in the classroom

- However, like any instructional strategy it should not be used excessively

1. Discuss new learners and research overview

2. Identify types of games and determine learning outcomes

3. Hands on use of games

4. Additional resources

Digital Natives

Mark Prensky defines Digital Natives as those individuals who were born in the digital world. They are “native” speakers of computers, video games and the Internet.
Digital Natives, Digital Immigrants, 2001

Our learners come to us more “tech savvy” but being tech savvy means more than just being unafraid of all things digital learners still need to be taught how to use tools for research effectively and how to use the technologies they are familiar with for learning

The Research

- How are games effective?
  - Anchored Instruction
  - Situated Learning & Cognition
  - Play Theory
  - Intrinsic Motivation
- So where to begin? (That's coming…)
  - How to implement in pedagogically sound manner
  - Instructional design

The Research

Research in “anthropology, psychology, and education indicates that play is an important mediator for learning and socialization throughout life” (Reiber, 1996, p. 44)

Play IS Learning
“We learn more in the first years of life [through play] than we do in any other corresponding time in our lives (Lepper & Chabay, 1985).

Games can promote optimal flow experiences (Csikszentmihalyi, M., 1990; The psychology of optimum experience); Flow may be optimal learning state

Motivation Theory:
Malone & Lepper, John Keller’s ARCS Model

Not all games are alike

- Analyze individually for underlying strengths and strategies
  - Different games Card games, video "arcade" style games, & interactive adventure games: different strategies, different learning supported
- Matching Taxonomies
  - Gagne, Bloom, & Bates' Taxonomies
- Games & Problem Solving
  - Games CAN be effective at all taxonomy levels, but problem solving/synthesis desirable
  - Adventure games may be best (problem-based; subordinate skills/knowledge)
- Like Thematic Units
  - Definition
  - Usually develop from scratch; not practical to do with a game

Think About This…

- Like Any Technology Integration, Takes Time, Planning
  - Easy to make non-effective learning material
  - Analysis of learner, content, outcomes, and strategies cannot be overlooked
- Games Are Not a Cure All
  - Not for all topics, learners, or environments
  - Expensive to develop & implement
    - Expense of installation and maintenance in lab environments
  - Games are effective ONLY if:
    - Instruction is matched to the medium (e.g., Kozma, 1985)
    - Content is integrated (e.g., not just for motivation)
    - Breadth vs. depth

Choosing a Suitable Game

Sometimes Game Elements Match Content of Course

Game	**Content**
Age of Empires, Civilization	History
Sim City	Geography, Civil Engineering
Law & Order, C.S.I.	Criminal Justice
Contraption, Roller Coaster Tycoon	Physics, Mathematics, Engineering

Choosing a Suitable Game

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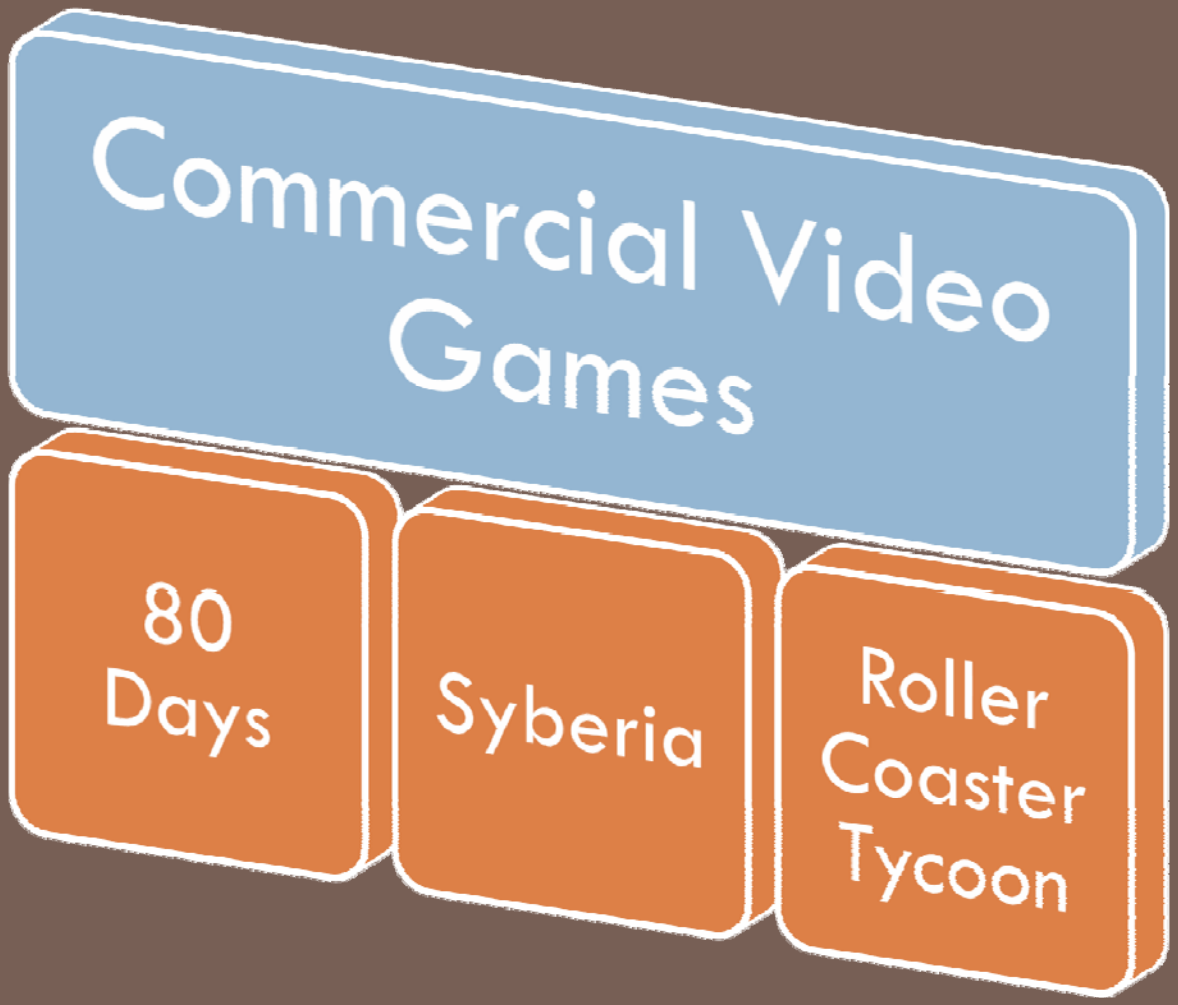
Game	**Content**
Froguts	Biology (disection)
Environmental Detectives	Science
Virtual Business	Business, Marketing
Chemicus	Chemistry

Play Book

As you review the game consider the following:

- How can this game be used in instruction?
- Is it (course) content or Topic (game element) Driven?
- What do I hope to accomplish with the use of this game? What's the purpose?
  - Is it entertaining?, a time filler?, does it match to the courses objectives?
  - (Don't use the game for the wrong intent)
  - What learning activities can be inspired by the game? What can you pull from the game to enhance student's learning?
- Game Replay



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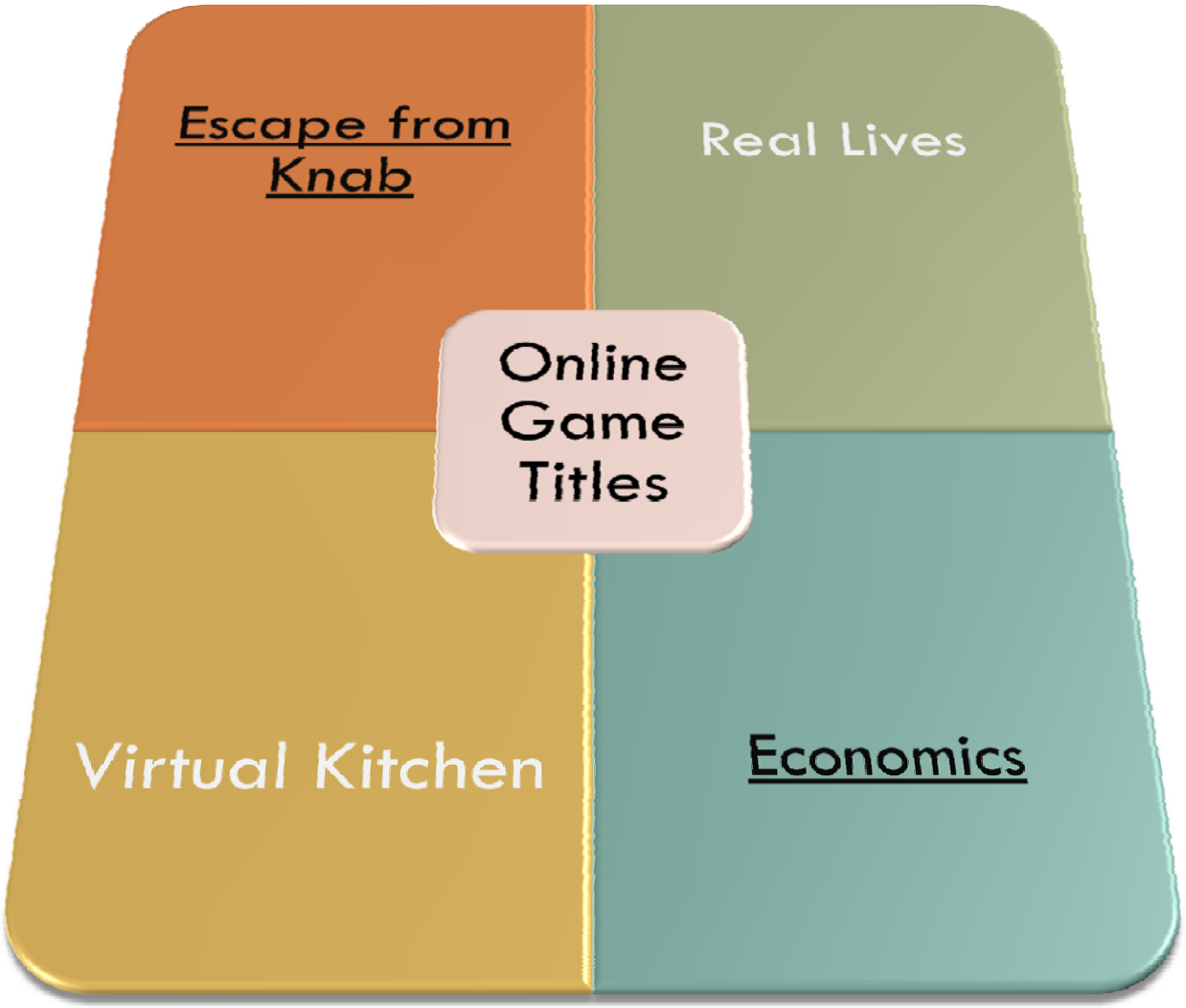

Post Game Analysis…

Take aways…

- Practical applications, ideas for use of gaming/simulation
- Watch for time constraints, not for quick and easy
- Determine what game level is suitable, look for interaction, higher order thinking
- Modify the game into your needs, simulate the environment needed to apply course content

Biographies

Kristy Conger
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Kristy worked in the classroom for 7 years as a Marketing Education teacher/ DECA Advisor/ Work Based Learning Coordinator in the Henry County School System. She also worked in conjunction with the Henry County School System and Tennessee Department of Vocation Rehabilitation as "School to Work" Case Manager. Her experience, in addition to serving as a Marketing instructor, includes teaching computer literacy courses through the Henry County Adult Basic Education Program as well as integrating gaming and simulations into course curriculum.

She joined the University of Memphis Advanced Learning Center staff June 1, 2005. In her current position as an Academic Technology Consultant, she has played an active role in several U of M projects including:

- Standardization of a campus wide personal response system
- Campus implementation of anti-plagiarism software
- Transition to a new system wide course management system

A native of Paris, TN, Kristy received her BS in Business Administration with an emphasis in Marketing from the University of Tennessee at Martin. She is currently pursuing her Master's in Instructional Design and Technology at the University of Memphis.

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Joanne plays a significant role in promoting the effective implementation of instructional technologies in course design, both face to face and online delivery. She is responsible for designing and facilitating a Faculty Fellowship and the TAF Innovation g=Grant program for the campus community. Joanne was also involved in the implementation of the Center for Multimedia Arts at the FedEx Institute, which encourages the use of multimedia in instruction.

Prior to joining the Advanced Learning Center, Joanne worked as an Instructional Designer/Trainer in the Human Resources Department at the University of Memphis where she facilitated training sessions for faculty and staff on such skills as leadership, productivity and customer service. She was also responsible for designing and developing instructional materials according to departmental needs and designing web-based training modules. Joanne also has experience as a classroom teacher for the Memphis City Schools and as an adjunct faculty member in the College of Education, University of Memphis. Joanne is currently pursuing a doctorate in Instructional Design & Technology.