Application of Online Games in Teacher Preparation for Social Studies Instruction

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March 30, 2007

San Antonio, TX, USA

21st Century Learners

☐ Net Generation
☐ Millennials
☐ Digital Natives

Digital Learning Approaches

- ☐ Online Learning
- ☐ Web-Based Learning
- ☐ E-Learning
- ☐ M-Learning
- ☐ Game-Based Learning

Why Learning by Gaming

- **How** to engage the "Digital Natives" in learning today?

- **What** are the benefits of using video games for teaching and learning?

- **Why** do games best match the digital natives' learning styles?

How to Engage the "Digital Natives" in Learning today?

- ☐ **Create a digital learning environment**
  - ■ Use data processing programs
  - ■ Use audio & video resources
  - ■ Use PPT presentations
  - ■ Use online resources and Internet search activities

- ☐ **Engage learners with digital games**
  - ■ Use games to deliver content knowledge
  - ■ Use games to learning necessary skills
  - ■ Use games for assessment
  - ■ Involve students in creating games databases

What are the Benefits of Using Video Games for Teaching and Learning?

☐ Summary of the Summit on Education Games 2006: The Federation of American Scientists

  ■ Video games can be converted into serious learning tools for schools.

  ■ Children are not just playing around when they are playing games. They are learning authentically from games.

What are the Benefits of Using Video Games for Teaching and Learning? (continued)

- Game playing could help teach higher order thinking skills such as
  - ☐ strategic thinking,
  - ☐ interpretative analysis,
  - ☐ problem solving,
  - ☐ Planning formulation and execution,
  - ☐ adaptation to rapid change, and
  - ☐ addressing one of the nation's most pressing needs — strengthening our system of education and preparing workers for 21st century

Why Do Games Best Match the Digital Natives' Learning Styles?

☐ **Gaming has the following 15 Features**:

- Game is interactive
- Game is manipulative
- Game is entertaining
- Game is challenging
- Game enables peer participating
- Game involves multimedia information
- Game creates a competitive environment
- Game provides immediate feedback
- Game rewards winning or success
- Game encourage perseverance
- Game teaches multitasking and parallel processing
- Game simulates reality
- Game facilitates inductive reasoning
- Game promotes visual literacy skills and media literacy
- Game is self-engaging

Sample Game #1: Weather Maker

- ☐ **Align game with curriculum**
  - ■ **Teaching weather in geography**
  - ■ **Learning objective (Grade 3-4)**
    - ☐ Students will understand what factors cause wind, rain, and snow
    - ☐ Students will understand the relationship between the causes -- equatorward temperature, polarward temperature, and humidity, and the results -- wind, rain, and snow by manipulating the **Weather Maker** game

- ☐ http://teacher.scholastic.com/scholasticnews/games_quizzes
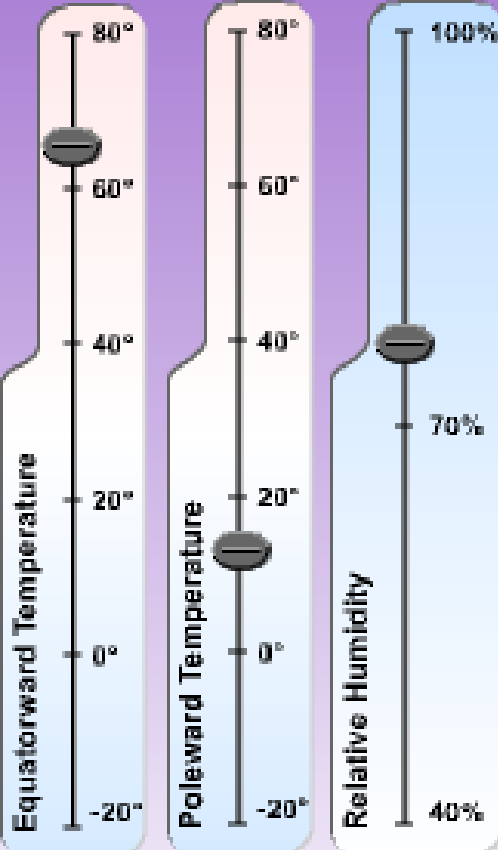
Sample Game #2: Connect the World

☐ Teach world culture

 ■ Learning objective (Grade 1-3)

 ■ Students will be able to learn that people in different culture do things differently by playing the game "Connect the World"
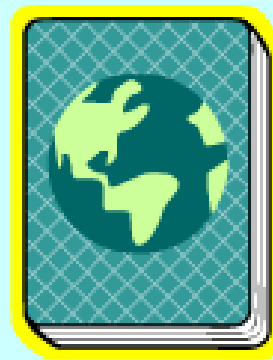
 ■ http://pbskids.org/arthur/games/connectworld/

Sample Game #3: Africa Adventure

☐ Teaching and Environment

- ■ Learning objectives (Grade 3-6)
- ■ Student will be able to learn the different geographic features by using the inquiry approach to explore a trail in a central African jungle

- ■ http://www.mywonderfulworld.org/games.html
- ■ http://www.brookfieldzoo.org/pagegen/wok/index_f4.html

Overcome the Stigma

- ☐ Playing game is harmful, not helpful
- ☐ Playing game hurts kids physical health
- ☐ Playing game causes aggressive behavior
- ☐ Games make kids addicted to play all day long
- ☐ Games are "play", not "work"

Suggestions for Teachers

- ❑ Searching, aggregating, and evaluating online games for classroom use
- ❑ Building online game databases in various subject areas in alignment with academic standards and curriculum
- ❑ Developing lesson plans with online games as a crucial instruction ingredient
- ❑ Involving students in the process of collecting and using online games for instruction and learning
- ❑ Conduct research on the cognitive patterns of the 21st century learners

Resources for Research on & Application of Digital Games

- ☐ **Prensky's Research**
  - ■ http://www.marcprensky.com/writing/default.asp

- ☐ **Entertaining Games with Non-Entertainment Goals (a.k.a. serious games)**
  - ■ http://www.socialimpactgames.com/

- ☐ **Commercial Educational Games**
  - ■ http://www.games2train.com/
  - ■ http://www.muzzylane.com/

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