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Are you a Gamer?

- Psychographics
- Demographics
  - Average game player is 33 yrs old
  - In 2005, 25% of gamers were over the age of 50
Motivation to Play

- Social Interaction
- Physical Seclusion
- Competition
- Knowledge
- Mastery
- Escapism
- Addiction
Video Game Platforms

- Arcade
- Console
- Computer
- Online
- Handheld
Genres

- Action
- Adventure
- Casino
- Puzzle
- Role Playing Games
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games
ESA’S 2006 ESSENTIAL FACTS ABOUT
THE COMPUTER AND VIDEO GAME INDUSTRY

BEST-SELLING COMPUTER GAME SUPER GENRES
BY UNITS SOLD, 2005

3.7% Sports
4.7% Action
5.8% Adventure
12.4% Role-Playing
14.4% Shooter
30.8% Strategy
19.8% Family & Children’s

Source: The NPD Group / Point-of-Sale Information
Genres

- Action
- Adventure
- Casino
- Puzzle
- Role Playing Games
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games
Genres

• Action
• Adventure
• Casino
• Puzzle
• Role Playing Games
• Simulations
• Strategy
• Trivia
• Massively Multiplayer Online Games

• Platformers
• Shooters
• Racing
• Fighting
Genres

- Action
- Adventure
- Casino
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- Trivia
- Massively Multiplayer Online Games

- Platformers
- Shooters
- Racing
- Fighting
Genres

- Action
- **Adventure**
- Casino
- Puzzle
- Role Playing Games
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games

Survival-Horror – Subgenre?
Genres

- Action
- Adventure
- **Casino**
- Puzzle
- Role Playing Games
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games
Genres

- Action
- Adventure
- Casino
- **Puzzle**
- Role Playing Games
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games
Genres

- Action
- Adventure
- Casino
- Puzzle
- **Role Playing Games**
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games
Genres

- Action
- Adventure
- Casino
- Puzzle
- Role Playing Games
- **Simulations**
- Strategy
- Trivia
- Massively Multiplayer Online Games

- Vehicle Simulations
- Process Simulations
- Sports Simulations
Genres

- Action
- Adventure
- Casino
- Puzzle
- Role Playing Games
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games

- Turn-Based
- Real-Time
Genres

- Action
- Adventure
- Casino
- Puzzle
- Role Playing Games
- Simulations
- Strategy
- Trivia
- Massively Multiplayer Online Games
Genres

- Action
- Adventure
- Casino
- Puzzle
- Role Playing Games
- Simulations
- Strategy
- Trivia

- Massively Multiplayer Online Games (MMOG)
- MMORPG
- MMOFPS
- MMORTS
Why Should We Care?

Gamers devote more than triple the amount of time spent playing games each week to exercising or playing sports, volunteering in the community, religious activities, creative endeavors, cultural activities, and reading.

ESA'S 2006 ESSENTIAL FACTS ABOUT THE COMPUTER AND VIDEO GAME INDUSTRY.
Why Should We Care?

Learning styles – are we keeping up?
Why Should We Care?

Some of us are struggling with understanding the world of “today’s multi-tasking, highly connected students who play games and communicate 24/7, almost in single-celled, Borg-like communities”…(Fritz)

“There’s a danger in games just being seen as button-mashers – just as there’s a danger in research being seen as simple Google. Games are not that simple, and we all know that research is not that simple.” (Waelchi)
Why Should We Care?

Learning Theory & Cognitive Processes

According to Gagne, there are 5 kinds of learning capabilities

• Verbal information (oral & written)
• Intellectual skills (problem solving)
• Cognitive strategies (creativity & control over one’s learning)
• Motor skills
• Attitudes affecting individual choice

(Becker)
What’s in a Game

• More than interactivity – continuously streaming feedback
• Aesthetics & presentation
• Did the sky grow dark without you noticing? – complete immersion
What’s in a Game

Gagne’s Nine Events of Instruction Applied to Games

1. Gaining Attention (Reception)
2. Informing Learners of the Objective (Expectancy)
3. Stimulating Recall of Prior Learning (Retrieval)
4. Presenting the Stimulus (Selective Perception)
5. Providing Learning Guidance (Semantic Encoding)
6. Eliciting Performance (Responding)
7. Providing Feedback (Reinforcement)
8. Assessing Performance
9. Enhancing Retention and Transfer (Generalization)
Motivation to Play?
Motivation to Learn?

People enjoy games when:

• They can achieve the specified goal, but not too easily
• The task is perceived to be fair: all participants have a similar chance of “winning” at the least at the start
• The stakes for failure are not too high but still present
• There is sufficient feedback (rewards for achievement) which must occur during the process and must be in context or at least measure progress toward goal
• There exists negative feedback as well (which ties into fairness)
• There is some element of chance – minimizing some guilt of failure and encouraging people to try again

(Becker)
Information Literacy

- Access
- Manage
- Integrate
- Evaluate
- Create

Adapted from ETS (Beagle)
The Research Process for Gamers

- Basic Reference Tools
- Comprehensive Web searching
- Mastering Interfaces
- Exploration & Experimentation
- Desire to Learn
- Social Learning
Gamers’ Information Literacy Skills

- Access
- Manage
- Integrate
- Evaluate
- Create

knowing about and knowing how to collect and/or retrieve information
Gamers’ Information Literacy Skills

- Access
- Manage
- Integrate
- Evaluate
- Create

applying an existing organizational or classification scheme
Gamers’ Information Literacy Skills

- Access
- Manage
- **Integrate**
- Evaluate
- Create

interpreting and representing, comparing and contrasting
Gamers’ Information Literacy Skills

- Access
- Manage
- Integrate
- Evaluate
- Create

judgments about the quality, relevance, usefulness of information
Gamers’ Information Literacy Skills

• Access
• Manage
• Integrate
• Evaluate
• **Create**

generating information by adapting applying designing, inventing or authoring
What Can We Do?

• Project Plan & Proposal
• Compile a team
• Brainstorm Ideas
• What’s been done?
• Collaborate
Original idea using a text-based game model...
modern 3d adventure games build upon this…great framework

what Jim had conceived is much more attainable with shareware packages such as ADRIFT…Very user-friendly
Dana Porter Sinking: Library Chronicles Book One

There is a legend at the University of Waterloo that the Dana Porter Library is sinking... Your quest is to get to the bottom of the sinking myth.

Library Entrance
A pleasant coffee aroma fills the air and you hear a quiet buzz of students working in the distance. You can move north, east and west.

north
You move north.
Information Desk
A friendly librarian sits at a desk with two computers. You can search TRELUS here. The Library is further east, south and west.

east
You move east.
Hollinger Room (computer alcove)
You can search TRELUS here. Also here is a metal desk. You can only move west.

west
Here appears to be something under the desk. You could probably search it and find some treasure.

north
You move north again. You are coming closer to the bottom of the sinkhole. You notice something moving under the desk. A gnome sprouts out of the ground! He looks like he's in pretty rough. There is some dust in his beard that could be dusted.
Case Studies
University of Minnesota

• School of Journalism and Mass Communication – Professors Nora Paul and Kathleen Hansen
Case Studies
University of Wolverhampton

• A Learning and Games Research Project involving a Partnership between DESQ and the School of Education
Christy

Website Evaluation
Examine these websites and answer the following question correctly for a free light. Answer incorrectly and lose a light!

Which of these websites is produced by a nonprofit agency?

http://www.diabetes.org
http://www.diabetes.com

1. Website A
2. Website B

• Scott Rice & Amy Harris
Importance of Assessment

• Completion Assessment - Did the player complete the lesson or pass the test?
• In-Process Assessment - How did the player choose his or her actions? Did he or she change their mind? If so, at what point? And so on.
• Teacher Evaluation - Based on observations of the student, does the teacher think the student now knows/understands the material?

(Chen)
And Now, a Taste…

- Examples of 4 modern games
- 4 different genres: Strategy, Action/Adventure, First Person Shooter, MMORPG
- Two of these games allow purchasers to use the game engine for modifications to create new games…
- Small warning: minor violence
References


Credits

Video clips and Background image courtesy of:
Valve – Halflife II
Eidos – Tombraider Legends
NC Soft – Lineage II Interlude
Atari – Civilizations IV
Credits

Screen shots courtesy of:
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