GAMIFICATION

A DIFFERENT PARADIGM OF PEDAGOGY

Katrin Becker

5: Thur. May 15 11:30-12:30
Outline

1. What am I playing now?
2. A New Paradigm of Education?
3. How Does Gamification Fit?
4. Gamification is NOT New
5. Gamification IS New
6. Is Gamification a Different Paradigm?
7. Resources
What am I playing Now?
What are Schools For?

- Childcare so parents can work.
- Socialization (Entrainment to authority)
- Creation of an efficient underclass of workers.
- Teaching Good Test-Taking Behavior

Schools are:
- hierarchical
- authoritarian
- do not encourage personal agency

Brenda Laurel
### A New Paradigm?

<table>
<thead>
<tr>
<th>Agriculture</th>
<th>Industrial</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>permanence</td>
<td>mobility</td>
<td>extreme mobility</td>
</tr>
<tr>
<td>communities</td>
<td>urbanization</td>
<td>urban &gt; rural</td>
</tr>
<tr>
<td>specialization</td>
<td>mechanization</td>
<td>jobs shift</td>
</tr>
<tr>
<td>extended families</td>
<td>nuclear family</td>
<td>family dispersal</td>
</tr>
<tr>
<td>slow transportation</td>
<td>rapid transportation</td>
<td>massive &amp; rapid</td>
</tr>
</tbody>
</table>
### A New Paradigm in Education?

<table>
<thead>
<tr>
<th><strong>Agriculture</strong></th>
<th><strong>Industrial</strong></th>
<th><strong>Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-on-1</td>
<td>mass education</td>
<td>???</td>
</tr>
<tr>
<td>personalized</td>
<td>age-determined</td>
<td>???</td>
</tr>
<tr>
<td>apprenticeship</td>
<td>trade schools</td>
<td>???</td>
</tr>
<tr>
<td>1-room school house</td>
<td><em>current system</em></td>
<td>???</td>
</tr>
</tbody>
</table>

Gamification: A Different Paradigm of Pedagogy
To understand what features an information-age educational or training system should have . . .

We must first understand the changing needs and conditions of the emerging information society.

## A New Paradigm in Education?

<table>
<thead>
<tr>
<th>Industrial Age</th>
<th>Information Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureaucratic organization</td>
<td>Team organization</td>
</tr>
<tr>
<td>Autocratic leadership</td>
<td>Shared leadership</td>
</tr>
<tr>
<td>Centralized control</td>
<td>Autonomy, accountability</td>
</tr>
<tr>
<td>Adversarial relationships</td>
<td>Cooperative relationships</td>
</tr>
<tr>
<td>Mass production, etc.</td>
<td>Customized production, etc.</td>
</tr>
<tr>
<td>Compliance</td>
<td>Initiative</td>
</tr>
<tr>
<td>Conformity</td>
<td>Diversity</td>
</tr>
<tr>
<td>One-way communications</td>
<td>Networking</td>
</tr>
<tr>
<td>Compartamentalization (Division of Labor)</td>
<td>Holism (Integration of tasks)</td>
</tr>
</tbody>
</table>

A New Paradigm in Education?

- problem-solving vs factual knowledge
- cooperation vs competition
- initiative vs compliance

A New Paradigm in Education?

- General Features:
  - People learn at different rates – adapt to them

- Sorting vs Learning
- Time-based vs Attainment-based
- Group-based vs Person-based
- Teacher-based vs Resource-based

A key: The report card

What Needs to Change?

A. Different Paradigm of Pedagogy (Instructional Technology)
B. Different Roles for students, teachers, and technology.
C. Different roles for instructional designers
D. Different structure of educational systems

What Needs to Change?

A. Different Paradigm of Pedagogy (Instructional Technology)
B. Different Roles for students, teachers, and technology.
C. Different roles for instructional designers
D. Different structure of educational systems

Different Paradigm of Pedagogy

- Students learn at different rates.
- Student progress is
  - attainment-based
  - customised
- Project Based
- Tutorial

Different Roles

- For Students:
  - active
  - self-directed
- For Teachers:
  - designers
  - facilitators
  - mentors

Different Roles for Technology.

- **Student Learning:**
  - record-keeping
  - planning
  - instruction
  - assessment

Different Structure of Educational Systems

No Grade Levels ➔ Continuous Progress

No Courses ➔ Projects, Attainments

No Grades ➔ Inventories of Attainments

No Classrooms ➔ Studios, Collaboration Contexts

How Does Gamification Fit?

The use of game elements in non-game contexts.

Gamification: A Different Paradigm of Pedagogy

Gamification

Game

System

Game

Gamification

Elements

Play

Toy

Playful Design
Game Systems vs Game Elements

Gamification: A Different Paradigm of Pedagogy
Gamification is NOT New
Gamification IS New:

- **Flexible Path**
  - Must earn 'N' XP.
  - Here are 'M' things
totalling >N XP (*important*)
  - Must do at LEAST these: ____
  - The rest is up to you.
Gamification IS New:

Competency Driven

- **Quests ➔ activities; things to DO**

- **Focus on:**
  - Activities that match objectives
  - How learners can demonstrate competence
Gamification IS New:

Accumulative Grades

Welcome to class ....
...... you all have ZERO

- **Everything** the learner does for points ADDS to the total.
- **NOTHING** the learner does can lower their score.
Back to Reigeluth's Different Paradigm of Pedagogy

- Structure of Educational Systems
- Student Progress
- Student Work
- Student & Teacher Roles
- Roles for Technology
Different Structure of Educational Systems

No Grade Levels ➞ Continuous Progress

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Different Structure of Educational Systems

No Grade Levels ➔ Continuous Progress

Gamification: A Different Paradigm of Pedagogy

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<table>
<thead>
<tr>
<th>Week</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
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</table>

**1103 Leaderboard**

<table>
<thead>
<tr>
<th>GRADING &amp; GPA Table (Used to calculate student grades on the Gradebook sheet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>0 - 19</td>
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<tr>
<td>20 - 39</td>
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<td>40 - 49</td>
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<td>73 - 76</td>
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<td>77 - 79</td>
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<td>80 - 84</td>
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<td>85 - 94</td>
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<tr>
<td>95 - 100</td>
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<tr>
<td>101+</td>
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</tbody>
</table>
Different Structure of Educational Systems

No Grade Levels → Continuous Progress
No Courses → Projects, Attainments
No Grades → Inventories of Attainments
No Classrooms → Studios, Collaboration Contexts
Different Structure of Educational Systems

No Courses ➔ Projects, Attainments
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Different Structure of Educational Systems

No Classrooms ➞ Studios, Collaboration
Contexts

Image Credit: http://thелеarningexpresspreschool.com/
Different Paradigm of Pedagogy

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Gamification: A Different Paradigm of Pedagogy


http://www.srareadinglabs.com/
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### Different Roles

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**Gamification: A Different Paradigm of Pedagogy**

Different Roles for Technology.

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  - assessment

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**Gamification: A Different Paradigm of Pedagogy**

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School is *Already* a Game

course requirements ↔ game objectives
policies / regulations ↔ game rules
assignments ↔ quests
grades ↔ XP
passing course ↔ winning the game
Key Differences

1. Flexible Path
2. Flexible Schedule
3. Self-Directed
4. Maximal Choice
5. Accumulative Grading
Questions? Comments?
Abstract of Presentation:

In a recent online presentation Charles M. Reigeluth, he said that the future of Ed Tech would require a change of paradigm of pedagogy. Gamification is one such new pedagogy that can be implemented without the need for institutional systemic change. ‘Gamification’ is the use of game elements in non-game contexts and since the term’s first appearance in 2006, it has become a trending topic on many education forums. This presentation reports on the gamification of 2 university courses: one a grad-level education course and the other a freshman computer course.

While many aspects of gamification are *not* new, some are, and when taken together create a pedagogy that could be one of Reigeluth’s different paradigms. His requirements for a new paradigm includes a requirement for attainment-based, continuous student progress that is learner-centered, personalized, and self-directed. Gamification, done right, is all those things.

The Gamification Paradigm includes:

2. More tasks to choose from than needed for a perfect score.
3. Flexible path through content to demonstrate objectives.

The presentation will explain the structure of the courses that were taught, highlight successes and failures, and conclude with strategies that can be used to incorporate meaningful gamification into existing courses.
Resources