“SERIOUS SPORTS – GBL FRAMEWORK FOR SPORTS AND COACHING”

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GROWTH OF DIGITAL GAMES
DIGITAL GAMES AND GAMERS

- Not typically painted in a positive light
- Image of Dank Internet Cafes & Unhealthy Lifestyle:
  - Junk food
  - Lack of sunlight
  - Etc.
Games Nowadays used for a myriad of purposes
SPARX

- www.sparx.org.nz
- Fantasy Game
- Player must talk to characters, solve problems
- Designed to treat mild - moderate depression
• Use of Cognitive Behavioural Therapy

• Links between:
  • How people think
  • What they do
  • How they feel.
“It turns out according to a clinical trial published in the British Medical Journal Sparx is at least as effective as “traditional” therapies in treating depression. Again this is for mild to moderate cases of depression not severe cases”
BUILDING COGNITIVE ABILITIES
NEURORACER

- NeuroRacer
- Developed by University of California, San Francisco
- Develops:
  - Short-term memory
  - Long-term focus
NEURORACER

Involves:
• Driving
• Identifying specific road signs that pop up on the screen
• While ignoring other signs deemed irrelevant
BUILDING PHYSICAL ABILITIES
"Exergame play increases caloric expenditure, heart rate, and coordination. Psychosocial and cognitive impacts of exergame play may include increased self-esteem, social interaction, motivation, attention, and visual–spatial skill"
EXERGAMES

- www.weecanfightobesity.org
- Alabama State Department of Education
- “To empower students and educators …through the use of technology based interactive game activities”
EXERGAMES

- Finnish defence forces
- Installed wiis and exergames in barracks across Finland
- To help compliment physical conditioning
EXERGAMES

• Ageing Research and Development in Ireland (CARDI)

• Use of Wii to:
  • Improve balance and gait for elderly people
  • Minimize the risk of falls in the future

• Wii used as an "extra arm of therapy"
LEARNING THROUGH GAMES
GAME BASED LEARNING

• Games provide instant feedback to the user,

• 100% continuous/formative assessment 100% of the time.

• Games build (Shaffer’s “Epistemic Games”):
  • Situated understandings
  • Effective social practices
  • Powerful identities
  • Shared values and ways of thinking
GAME BASED LEARNING

• Gee suggests games may have as many as 36 learning principles build into them, e.g.

  • **Achievement Principle**: there are intrinsic rewards from the beginning, customised to each learner's level, effort, and growing mastery
  
  • **Practice Principle**: Learners get lots and lots of practice in a context where the practice is not boring
  
  • **"Psychosocial Moratorium" Principle**: learners can take risks in a space where real-world consequences are lowered
  
  • **Multimodal Principle**: Meaning and knowledge are built up through various modalities (images, texts, symbols, interactions, abstract design, sound, etc.), not just words
SPORTS GAMES
SPORTS GAMES

- Replicate (or to simulate) real-life situations within the world of sports in a computer or video game
- Focus on fidelity to actual sport in taxonomy, physical movement, equipment, etc
SPORTS GAMES

- Primarily **cognitive** competencies
- Can also be subdivided into sports knowledge and problem solving (meta-cognitive).
- Can provide information and demonstrate knowledge about:
  - Sports rules
  - Terminology used in the sport
  - Physiology for a given sport
  - Movement and environment
  - Organizations, institutions & individuals
SPORTS GAMES

- Focus mainly on a specific sport and its constitutive sportive action and physical activity.
- Reduction of real sports complexity with fictional characters and unrealistic human body movement.
Primarily **cognitive** & **social** competencies

Less fidelity to real-life, more emphasis on “action gaming”

Can provide information on:

- Sports techniques
- Terminology used in the sport

Can engage the user in

- Wider communication
- Co-operation/ teamwork
• Elements of role-playing games - player assumes leadership of a sports club or an athlete

• Real-life fidelity, but from reality-based problems a person in that role has (e.g., economic, resource management, etc.)
SPORTS GAMES

• Primarily meta-cognitive

• Analysis of individual game-play, facilitating thinking and problem-solving and decision making

• Can allow the user to:
  – Engage in problem-solving and decision making in the sport
  – Build hypotheses for the relevant sport
  – Facilitate information-gathering and re-use of information
  – Engage in creativity in their approach to the game
SPORTS GAMES

• Exercise or motion-orientated games with focus on gross motor skills.

• Rarely claim real-life fidelity in terms of sports movement, but can legitimately claim provision of aerobic/anaerobic activity.
SPORTS GAMES

- Primarily motor skill competencies
- Focus on player’s real-life movement - “action gaming”
- Generally, fidelity to real sport irrelevant
- Can involve player in:
  - Gross motor skills
  - Eye-hand/ eye-foot- /eye-leg- coordination
  - Sense of embodied cognition
  - Sense of agency
SERIOUS SPORTS PROJECT
GAME DEVELOPMENT FRAMEWORK
COACHING FRAMEWORK

COACH (C) → ATHLETE POOL (AP) → TRAINING (T) → STRATEGY (S) → BREAK PLAY (BP) → IN PLAY (IP) → RESULT

SYSTEM POTENTIAL (SP) → OPPOSITION (O) → TEAM → PLAYERS → LEVEL OF PERFORMANCE

Dt: Pre, In, Post
ONLINE DIGITAL GAME
Game Designed to Help Train:

- Athlete Profiling
- Optimizing Performance
- Evaluating Performance
- Selecting Tactics
- Skills Training
- Physical Training
- Player Selection
- Training Planning
Supports Good Coaching Principles through In-Game Learning

- Critical Thinking
- Evidence Based Evaluation
- Trial and Error
- Reflective Learning
Create and Develop your own Personal Team and Branding
Choose **Players** and select the **Positions** where they will play best.

**EMRE YAVUZ**
- **Star**
- **Injured**
- **Endurance**: 9/10
- **Speed**: 9/10
- **Strength**: 9/10
- **Flexibility**: 9/10
- **Offense**: 8/10
- **Defense**: 8/10
- **Passing**: 8/10
- **Control**: 9/10

**Players**
- **Yasin Nasuh**
- **Hasan Ker**
- **ERC Karag**
- **Sadik Tozko**

**Players**
- **Total**: 4/10

**Drag & Drop Players to Position on Court**

**Continue**
Train your Team’s **Physical Ability** and **Skills** with different **Training Activities**

### TRAINING ACTIVITIES

- **Defending**
  - Quick Feet
  - One on One
  - 3 on 3 Defensive Drill

### TRAINING SCHEDULE

<table>
<thead>
<tr>
<th>SESSION 1</th>
<th>SESSION 2</th>
<th>SESSION 3</th>
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</thead>
<tbody>
<tr>
<td>Spiderman Stretch</td>
<td>Knee Brace</td>
<td>Iron Cross</td>
</tr>
<tr>
<td>Superman Standing</td>
<td></td>
<td>Wide Pull-Up</td>
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</table>
Play Opponent Teams, Watch the Match and Analyze the Information

TEAM 6

OPPONENT 5

01:16 Elise Rutherford passes to Jim Erte
01:22 Liam Norton gets credit for the assist
01:28 Jim Erte loses control of the ball
01:33 Deirdre Creedon makes a pass
02:02 Oğuz Konya shoots a 2 Pointer!
Select and Change Tactics, Players, Play Style and Performance

TEAM
20

OPPONENT
18

PLAY INTENSITY

DEFENSIVE TACTICS

OFFENSIVE TACTICS

TIMEOUT: 02:37

FINISH
Play Opponent Teams to come first in the League...

<table>
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<tr>
<th>TEAM</th>
<th>PLAYED</th>
<th>POINTS</th>
<th>WON</th>
<th>LOST</th>
<th>POINTS+</th>
<th>POINTS-</th>
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</tbody>
</table>
...or play a **Quick Match** with Your Personal Team or an Existing Team

- **B-BALLERS**
  - Uniform: 91%
  - Shoes: 25%
  - Basket: 37%
  - Shield: 77%
  - Ball: 62%
  - Hand: 19%

- **BASKET KINGS**
  - Uniform: 91%
  - Shoes: 25%
  - Basket: 37%
  - Shield: 77%
  - Ball: 62%
  - Hand: 19%

- **SLIVERSTEPPERS**
  - Uniform: 91%
  - Shoes: 25%
  - Basket: 37%
  - Shield: 77%
  - Ball: 62%
  - Hand: 19%

- **ALPHA FLAMERS**
  - Uniform: 91%
  - Shoes: 25%
  - Basket: 37%
  - Shield: 77%
  - Ball: 62%
  - Hand: 19%
Earn Awards for completing significant Game Achievements

- **10 GAMES**: Team won 10 games
- **3 IS A CHARM!**: Team won 3 games in a row
- **HAPPENS TO EVERYONE**: Team lost 1 game
The Game also provides In-Depth Information on real Basketball Training Activities via Video & Animation
Access Videos explaining Physical and Skill-based Training Activities
Access an **Advice Center for In-Depth Advice on Training/ Tactics**

**Spiderman Stretch**

**Training Activity Time:** 3 minutes
**Training Activity Warm-Up:** Foam Roller (calves, hamstrings, quadriceps, back, IT band, glutes)
**Training Activity Cool-down (if necessary):** None
**Training Activity Description:** Warmup activity that stretches the groin, hip, glutes and calves

**How to perform Training Activity (in steps):**
1. Start the spiderman stretch from an athletic position with feet hip width apart.
2. Go down into a lunge, keeping your back leg straight.
3. Reach towards your instep with your elbow keeping your arm bent.
4. Drop your hips as low as possible keeping your back leg straight (hold for 2 seconds).
5. Then reach across your front leg, straighten out front leg and lift your toe (hold for 2 seconds).
6. Drop down into a lunge with your other foot (hold for 2 seconds).
7. Repeat this 5 times each leg.

**Training Activity Tip:** The player can stay in the same location or continuously crawl forward. Keep hips square and forward throughout the exercise.

**Training Activity Advantages:**
1. Develops mobility in both hips.
2. Increases flexibility and decreases risk of injury especially in the groin.
Access random **Advice** and **Tips** throughout the Game

- **EDIT YOUR TEAM**
- **QUICK MATCH**
- **LEAGUE**

**The Wide Pull-up activity builds strength, muscular endurance and a healthy back, but it can put a lot of stress on the shoulder joints.**
ISSUES AND RESISTANCES
RESISTANCES

Common Resistances
Summary of the common reasons for resistance to using games for learning.

- Expensive
- School Policies
- Violent
- Addictive
- Time Consuming
- Boring
- No Guidance
- Antisocial
- No Credibility
- Unhealthy
ISSUES

• Obviously Games are not sufficient in themselves, or certainly should not be taken as a replacement to traditional means.
• You can't replace what athletes do in a game with what they do on a video game
• But technology is ever-improving and the line between real and realistic is growing increasingly blurry.
http://serious-sports.org/