

Gamification in the Adult Academic Learning Environment

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Gamification in the Adult Academic Learning Environment *Innovative Techniques in Staff Development at University of Washington*

The term “gamification” has recently become an informal umbrella for the use of video game elements in non-gaming systems and applications - with the intent of improving user engagement. For educators, the objective is to improve engagement, but more so, to increase retention and mastery of content, encourage creative risk-taking, and to stimulate greater strategic reasoning.

Recent brain-based research suggests a similarity between



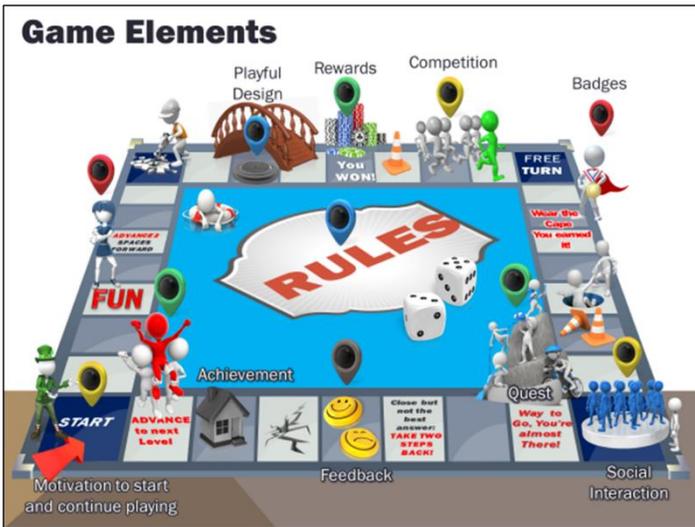
effective methods of activating fundamental motivation triggers in games, and the principles of adult learning (*Ex 1-2*). Therefore, our first step in game formatting was to construct correlations between Knowles’s Andragogy, Blooms Domains of Learning, and theories of intrinsic and extrinsic motivation, to elements of gamification. More specifically, we identified specific learning objectives within a determined course that would

GAME ELEMENTS

- Motivation Strategy to influence players to start and continue playing
- Rules of Engagement
- FUN
- Rewards and Badges
- Competition 
- Social Interaction
- A Quest / Interesting Content
- Rapid Feedback
- Levels of Achievement / Player Journey
- Playful Design
- Scoreboard / Leaderboard

lend itself to gamification, and associated it with learning theories that would support the alternative structure.

Gamification is more widely used in technological applications, yet in our environment, we chose a more assessable and economical medium: the board game. We've integrated this construct into our existing course instruction also because it



provides hands-on cognitive development and a non-threatening, playful, yet competitive environment. The game elements, discussions, and problem solving with fellow team members serve as vehicles for learning, and by incorporating questions, problems to solve, and situations to consider, learners are challenged to think through to application.

In a report on gamification in the K-12 experience,* Columbia University's Assistant Professor of Technology & Education, Joey Lee PhD., stated "Bringing education and game elements together could turn out like peanut butter meeting chocolate: two great tastes working together, leading to results that are especially important for developing 21st century skills. Gamification can motivate students to engage in the classroom,

give teachers better tools to guide and reward students, and get students to bring their full selves to the pursuit of learning. It can show them the ways that education can be a joyful experience, and the blurring of boundaries between informal and formal learning can inspire students to learn in life-wide, lifelong, and life-deep ways."

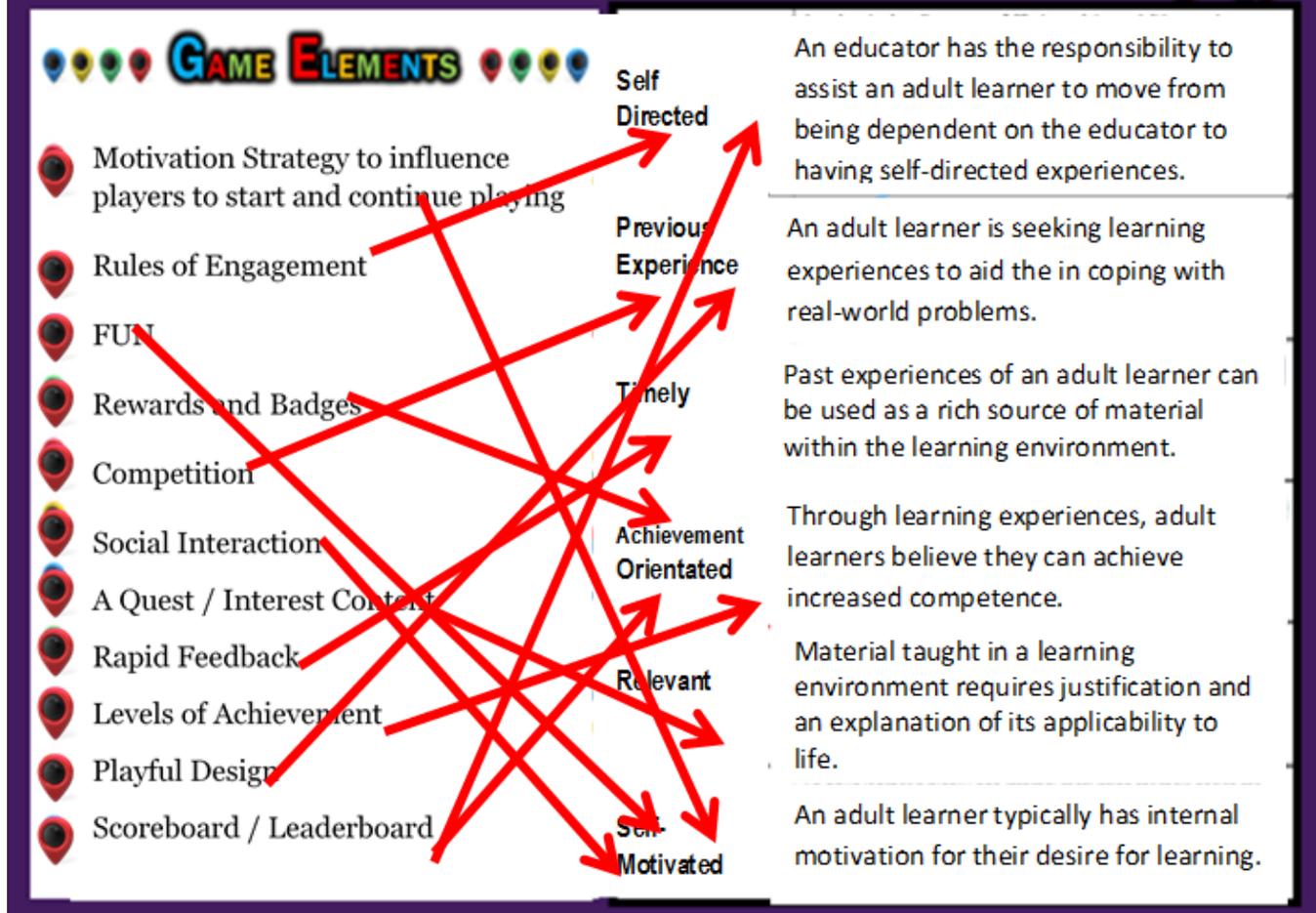
In higher ed. institutions, very little research and experimentation with non-technical gamification has been documented. Our ongoing integration has been to determine if gamification can make significant improvements in the adult learners' engagement, retention, and quality of learning, as with children and younger students, or whether it is just an *en vogue* notion with no practical relevance in the university environment long-term.

Our workshop brought together educational practitioners for a hands-on game-play and discussions of the game's enhancement to learning and meeting analogical requirements; its flexibility to include diverse learning styles; the learner's challenge to think strategically and creatively, and the game's ease of play, ability to engage, and fun-factor.

Key Principles of Andragogy	
Self-Directed	An educator has the responsibility to assist an adult learner to <u>move from being dependent on the educator to having self-directed experiences.</u>
Previous Experience	Past experiences of an adult learner can be used as a <u>rich source of material</u> within the learning environment.
Timely	An adult learner is seeking learning experiences to aid them in coping with real-world problems.
Achievement Orientated	Through learning experiences, adult learners <u>believe they can achieve increased competence.</u>
Relevance	Material taught in a learning environment requires justification and an explanation of its <u>applicability to life.</u>
Self-Motivated	An adult learner typically has <u>internal motivation</u> for their desire for learning.

Andragogy

Ex. 1



Ex. 2

