Using serious games as a management tool in transitioning to agile practices

Gloria J. Miller, Managing Consultant
Project & Program Management

Project Challenge
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maxmetrics
Management & IT Consulting

Gloria J. Miller, Project Manager

Profile

- Program and Project Manager of Information Technology and Business Intelligence/Analytical projects
- 20+ years experience with agile and traditional methodologies.
- Author of 'Going Agile Project Management Practices – 3rd Edition'
- Founder of the IT and management consultancy company maxmetrics

Education
- DBA Project Management
- MBA
- BS Computer Science
- AAS Electronic Technology

Certifications
- PMP®
- PMI®-ACP
- Certified ScrumMaster®

Victoria Vaca Núñez, Project Assistant

Profile

- Professional skilled in knowledge management, responsible for effective knowledge sharing to re-use project documentation and reports
- Demonstrated history of working in the information technology and services industry as a project assistant

Education
- MA in Spanish Linguistics
- Bachelor's degree in German Philology

Certifications
- Certified ScrumMaster®

Using serious games as a management tool

Topics:

1

Introduction

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Agility

- "the capability to quickly sense and adapt to external and internal changes to deliver relevant results in a productive and cost-effective manner."

Organization Change

Agile

- "a mindset based on a set of key values and principles designed to better enable collaborative work and deliver continuous value through a "people-first" orientation."

Agile Practices

Agile Projects

- "employ a single agile approach or framework … or a mixture of different agile approaches."

Scrum, Kanban, XP

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(PMI, 2017, p. 2)

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Agile principles from Agile Manifesto

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.	2. Welcome changing requirements, even late in development. Agile processes harness change for the customer' competitive advantage.	3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.	4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.	6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.	7. Working software is the primary measure of progress.	8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.	10. Simplicity–the art of maximizing the amount of work not done–is essential.	11. The best architectures, requirements, and designs emerge from self-organizing teams.	12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly

www.agilemanifesto.org

Serious games are games that engage the user and contribute to the achievement of a *defined purpose* other than pure entertainment (whether or not the user is consciously aware of it)" (Engström and Backlund (2021), pg 1).

- **Game dynamics** -- rankings, rewards or point systems -- motivate players to get more points, coins, lives or go to the next level.

- **Simulation** --reproduce, imitate or simulate real life situations – immerse players in a similar situation, interact to a simulated reality, practice the skills.

- **Learning** -- teach something -- educate players as a process for improving knowledge transfer.

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A Reflective Game Design framework for Game-Based Learning
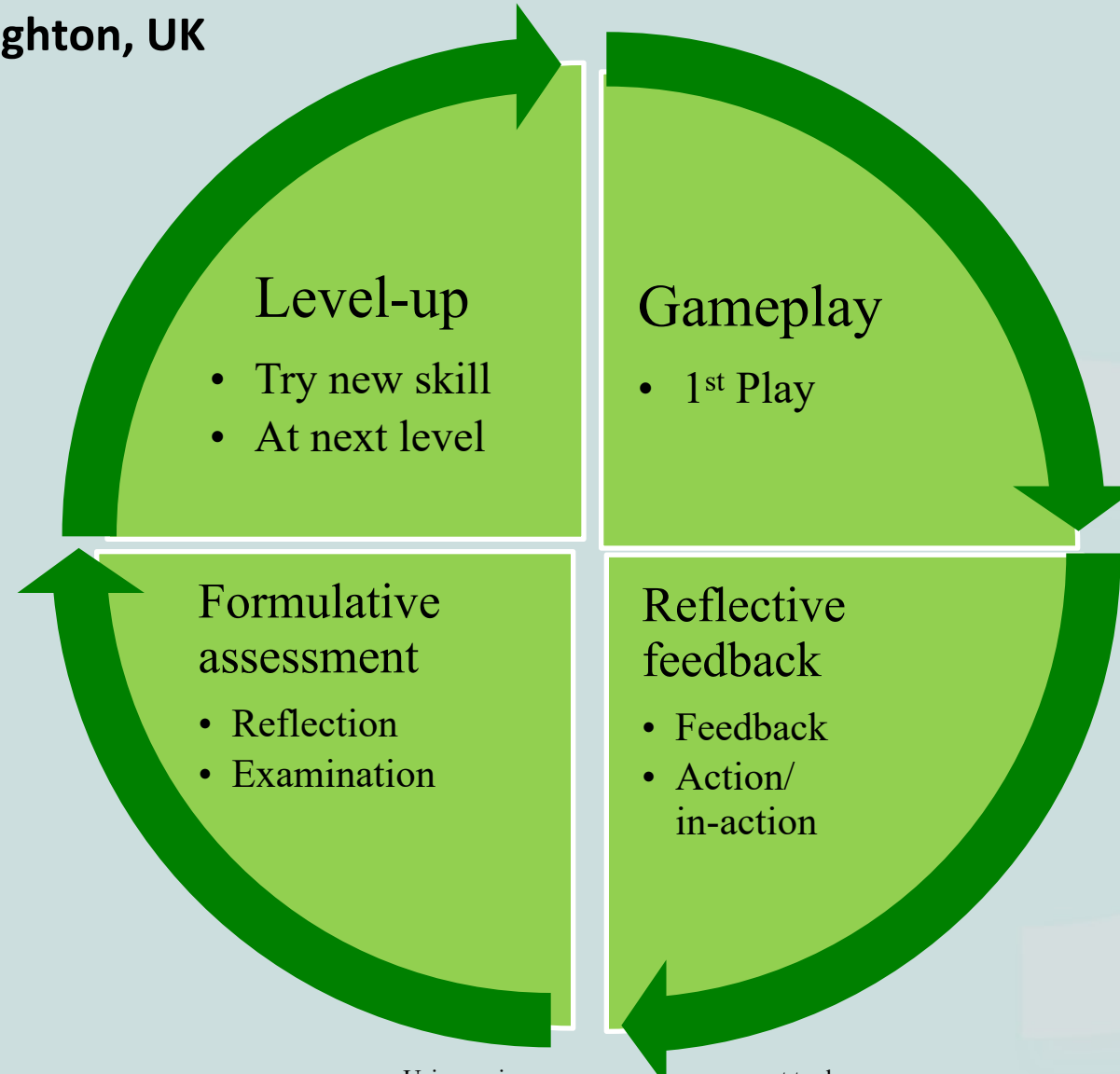
Anjuman Shaheen, Frida Halvorsen and Panagiotis Fotaris
University of Brighton, Brighton, UK

Active Experimentation

Concert Experience

Level-up
- Try new skill
- At next level

Gameplay
- 1st Play

Abstract Conceptualization

Reflective Observation

Formulative assessment
- Reflection
- Examination

Reflective feedback
- Feedback
- Action/ in-action

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Serious Games

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Innovation Games

- Understand client needs and processes
- https://wind4change.com/innovation-games-luke-hohmann-what/

Agile games

- Team building & creativity
- https://miro.com/blog/agile-games-to-boost-team-building/

Simulation Games

- Real world scenarios
- https://theprojectwingame.com/

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Marshmallow Tower.	**TIME TO PLAY:** 20 minutes (for one round)
		LEARNING OBJECTIVES: Collaboration and iteration

Paper Airplane Game. **TIME TO PLAY :** 45 minutes (nine-minute sprints)
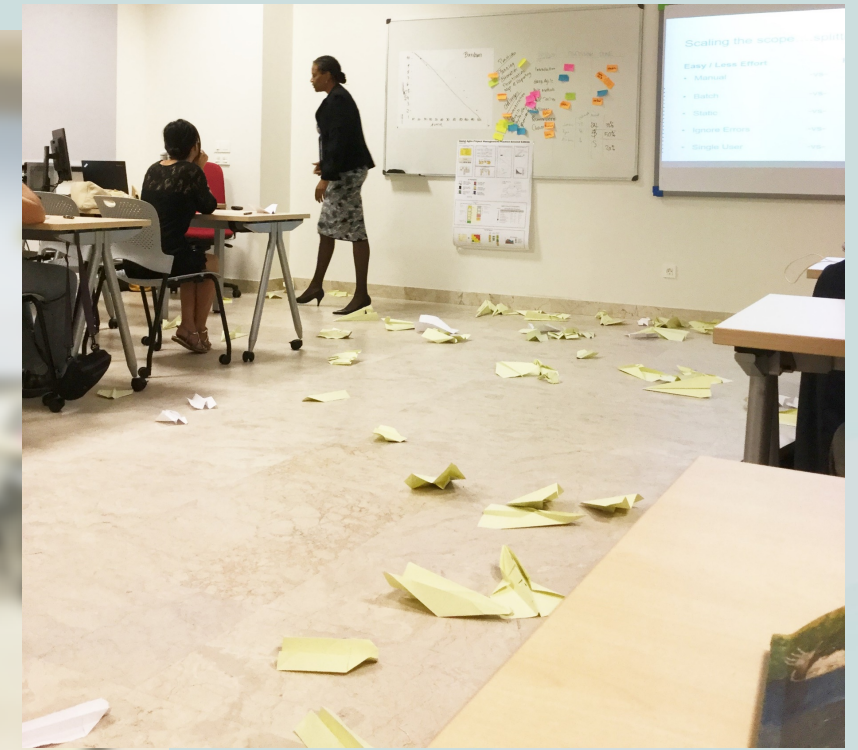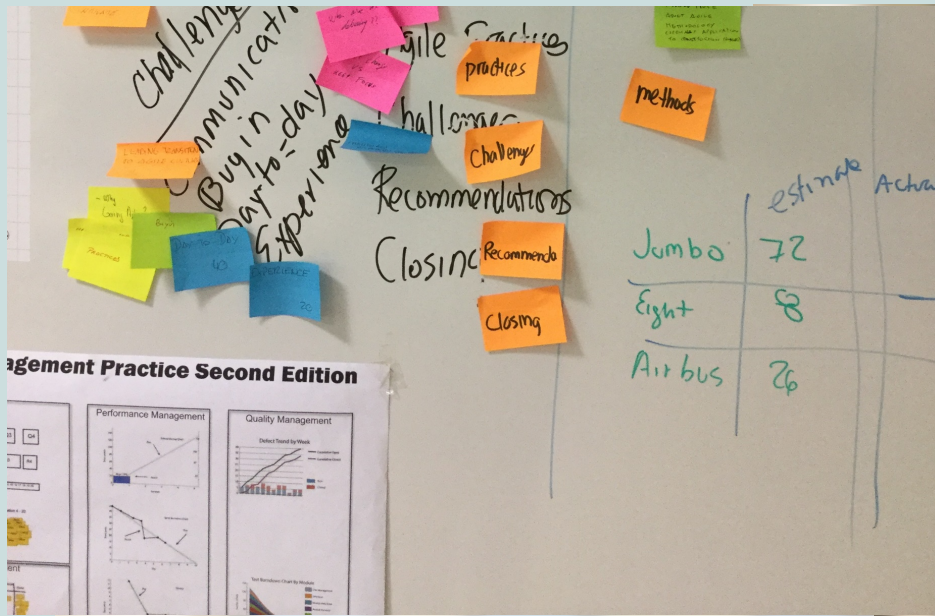		**LEARNING OBJECTIVES:** Iteration and time blocks

Bubble Point Game.	**TIME TO PLAY:** 10 minutes
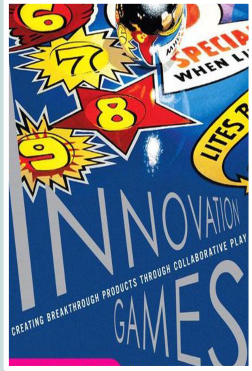		**LEARNING OBJECTIVES:** Decision making and collaboration

Coin Game.	**TIME TO PLAY:** 20 minutes
		LEARNING OBJECTIVES: Self-organization and focus

Ball Point Game.	**TIME TO PLAY** : 15+ minutes (three-minute sprints)
		LEARNING OBJECTIVES: Agile production process

https://miro.com/blog/agile-games-to-boost-team-building/

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Product Vision	Prioritization & Alignment	Customer behavior / needs	Find New Features
Product box	20/20 Vision	Me & my shadow	Spider web
Speed boat	Buy a feature	Show n Tell	Start your day
Remember the future	Prune the product tree	The Apprentice	Give them a hot tub

https://wind4change.com/innovation-games-luke-hohmann-what/

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Many games are based on customers working together creating, negotiating, explaining, prioritizing, and envisioning the products and services that will enable them to accomplish their goals.

Luke Hohmann

BANG-FOR-THE-BUCK

'Bang-for-the-Buck' is a game in which the stakeholders collaborate to prioritize the product backlog based on value and risk. The goal is to have the stakeholders prioritize what's important and valuable.
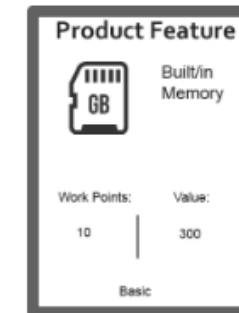
BUY A FEATURE

In 'Buy a Feature,' stakeholders are given a fixed budget. They're shown features and estimated prices, and the stakeholders must decide which features to purchase for that budget.

20/20 VISION

In '20/20 Vision', customers negotiate the relative order of importance of product features. The goal is to order the features from most to least important.

Product Feature

Built/in Memory

Work Points:	Value:
10	300

Basic

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- In Scrum projects, ~44% of PM tasks from *ISO 21500:2012 Guidance on Project Management* have been delegated to the others or are shared with the PM

- Project experience showed people struggling to understand the new responsibilities

- The Project Win Game™

- US Patented board game to simulate the agile and traditional project experience while reacting to risks, issues, and opportunities.

Framework for Project Management in Agile Projects: A Quantitative Study

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Abstract. Recent studies have confirmed the efficacy of agile methodologies in project success, but can projects skip several project management tasks and still deliver the expected results? How are traditional project managers engaged in agile projects? Who executes what project management tasks in projects applying agile methodologies? The aim of this study was to define a framework for project management tasks in agile projects. The results quantify subjective and theoretical speculation on who perform... Project managers are engaged i... and the project sponsor are sig... The agile coach is not a substitu... areas where agile methodologies... for project management activitie...

Keywords: Project managemen... coach · Scrum master · Project r...

1 Introduction

While the adoption of agile project... project management tasks in agile p... confusion in practice [2–4]. Agile m... that should allow projects to be flexib... mental fashion. Some of the most po... as scrum, extreme programming (X... include a project manager role or pro... three roles: a scrum master, product...

Shastri, Hoda, and Amor [6] fo... exists in agile projects; however, the... the project manager performs. "The... significant impact on the role of the... circumstances under which the pro... needed" [4, p. 11]. Even the *Agile ...* Institute (PMI) in 2017 states that th... somewhat unknown" [7, p. 37].

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E. Ziemba (Ed.): AITM 2019/ISM 2019, LNBI...
https://doi.org/10.1007/978-3-030-43353-6_9

https://theprojectwingame.com/

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Behaviors	Learnings
Selecting a methodology	Traditional/waterfall –vs- agile
Building a team	Best team composition
Deciding product features	All at once –vs- incremental
Managing change and risk	Adapting to good/bad situations
Budgeting	Allocating money
Delivery	Tradeoff in cost –vs- value
Issues and opportunities	Dealing with unexpected events

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3 Game Play

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1. Organize participation
2. Set-up game environment
3. Explains game play (pre-brief)
4. Control the pace of play
5. Monitor participation
6. Manages the overall event
7. Facilitate discussion (de-brief)

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Quick Team Building Games by Wrike

Objectives:

- Team building
- Communication, interpretation

Communication

Material:

- Paper sketches
- Pencils/pens

Time period:

- Introduction – 2-3 minutes
- Game play 5-10 minutes
- Debrief – 2-3 minutes

Source: https://www.wrike.com/de/blog/12-geniale-teambuilding-spiele-die-ihrem-team-garantiert-spas-machen/   12-Oct-2023

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Quick Team Building Games by Wrike

Players:
- Split into 2-people teams
- Sit face to face one another

Rules:
- Person 1: Describe the picture that you received to the partner; without saying what it is.
- Person 2: Draw the picture as described by your partner.

- Switch places: Person 2 describes, Person 1 draws
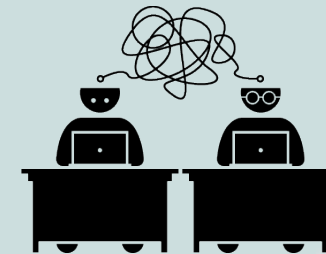
- Upon completion share the results

Source: https://www.wrike.com/de/blog/12-geniale-teambuilding-spiele-die-ihrem-team-garantiert-spas-machen/

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Partner –to- partner:

- How close or far away from what you expected did your partner draw?
- Why do you think you got that outcome?
- How did you feel about the experience? Time pressure? Partners reaction?
- What would you do different next time?

Facilitator to team:

- How well did the partner communicate?
- How did they handle stress?

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4 Conclusions

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- **Go to: www.menti.com**
- **Enter Code: 3815 2851**

OR

Answer the Question:
Would you use a serious game/gamification on your projects?

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Overall

- Engaging, fun learning for serious purpose

- Safe environment to fail, to try, to learn

- Leveraging multi-dimensions of communication

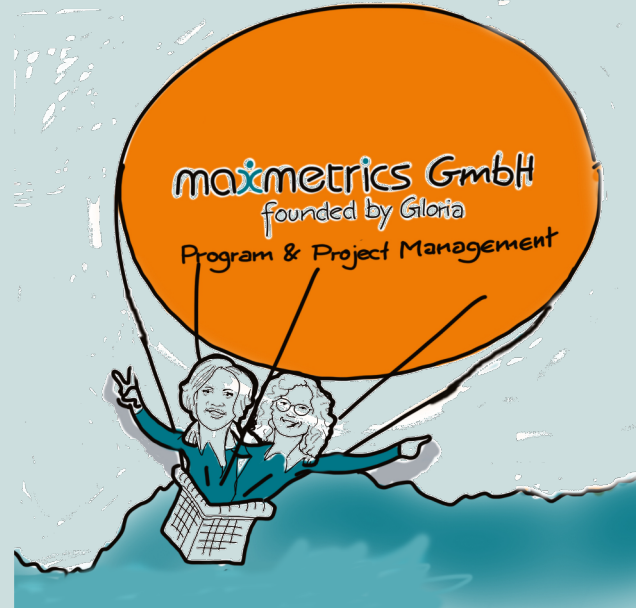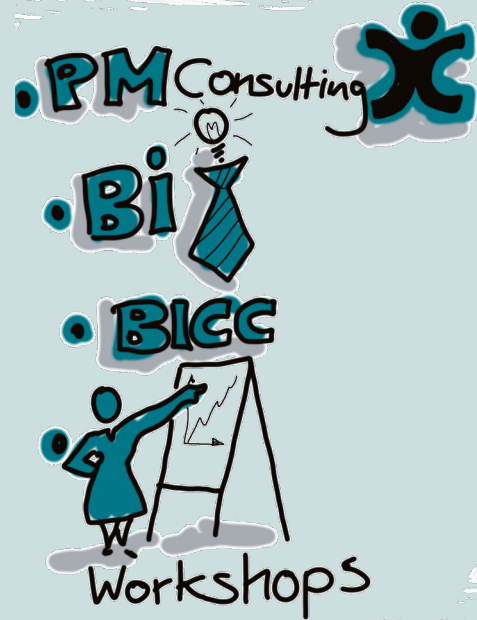- Multidisciplinary players, teams

+ for Innovation games

- Puts ownership, control with relevant participates

- Produces visual artifacts useful for the project

+ for management

- gain impression in how people communicate, work together, decide

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