**IGDV Development Management: A Critical Evaluation of Project Management Methodologies**

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Abstract (150-250)

In the game development industry, project management is a key factor to ensure a smooth development process. This report will discuss how data can be generated and collected through different project management methodologies (PMM), and how it can affect the success of the project. The results of this report will assist indie and AAA companies in making a more calculated decision on the most optimal management methodology for their project development process.

Keywords

Project management methodologies, Agile, Waterfall, Game development, Project success, Development process, Data, Communication

# Section 1.

Introduction (200-400)

Project management methodologies are defined as a set of rules, methods & processes that are used to aid in the project development process. PMM give project managers a framework for planning and managing the development process of a project. Many methodologies exist but the two most used methodologies are waterfall and agile, both have advantages and disadvantages which will be discussed.

With the rate of technological innovation and the increased challenges within the digital creative industry (Parmentier and Mangematin, 2014), PMM has needed to accommodate the new projects of today.

PMM is meant to enhance and increase the likelihood of the success of the project during the development phase, however, PMM just provides the structure to guide the project in a certain direction it does not guarantee success. When deciding on the optimal PMM for a project several factors must be considered before starting development.

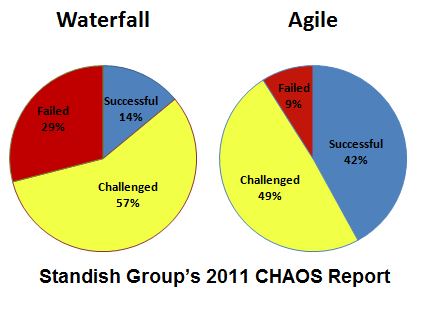
Key Consideration in choosing the methodology

* Organizational strategic goals and core values
* Constraints
* Stakeholders
* Risks
* Complexity
* Project Size
* Cost

# Section 2.

Literature Review (500-700)

When comparing agile and traditional methodologies it difficult to compare them as they are so different, however, project success needs to be investigated before starting a project and choosing a methodology. According to the 2011 Chaos report projects that used agile succeeded three times more often than waterfall, “software applications developed through the agile process have three time the success rate of the traditional waterfall method”. The results of this report come from project conducted from 2002 through 2010, the total number of project in their database and the ratio of agile to traditional project is unknown. The image



# Section 3.

Agile Methodologies (600-900)

Agile was created for projects that require significant flexibility and speed compared to more traditional management. Agile development follows an incremental and iterative development process and is highly flexible allowing for rapid adjustments throughout the project. Instead of massive planning like traditional methods, a project using agile will create a backlog of work/tasks that are prioritized in levels of importance, these tasks are then completed in sprints that can last up to 4 weeks after the sprint is complete the team will demonstrate what they’ve completed. At this point it allows the team to identify improvements for the next sprint. Examples of methodologies that incorporate agile are as followed

1. Scrum
2. Scrumban
3. Extreme Programming
4. Feature Driven Development
5. DevOps
6. Lean Software Development
7. Crystal Methodologies
8. Dynamic system development
9. Scrum

Burndown Chart

1. Extreme Programming
2. Feature Driven Development

# Section 4.

Traditional Methodologies (600-900)

In traditional project management, the development process is divided into static phases, these phases comprise of analysis, design, implementation, testing, deployment, and maintenance. These phases must be executed in this specific order, as it allows for increased control throughout each phase and offers a lot of formal planning before development is underway. Traditional management, however, is extremely inflexible due to the linear structured development process, it is possible to change aspects of the project during development however the changes must be justified and must go through control procedures. Examples of traditional and structured management

1. Structured System Analysis & Design Method (SSADM)
2. Prince 2
3. V Model
4. Rapid Application Development (RAD)
5. V Model
6. Rapid Application Development (RAD)
7. Structured System Analysis & Design Method (SSADM)

# Section 5.

Results and Discussion (200-400)

# Section 6.

Conclusion (200-300)