Evaluating Teamwork in a Game Development Team: Observations from Attending a "Sprint Retrospective"

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INTRODUCTION

This paper details preliminary qualitative research into collaborative work on game development teams. It considers one empirical example from a Danish case study in which a single professional game team evaluate their teamwork. The research question is as follows: How do the developers engage with each other for discussing shared problems within the team? The object of analysis is the interplay of communication during this exercise. More specifically, the paper relates the group interactions with the team's formulated problems to analyse the effect of having multiple viewpoints inform discussion. Overall, the paper contributes a context-dependent description of team coordination in which developers distinguish conflicts and priorities with each other as part of an exercise. The findings support ongoing research into situated practices of game developers (Sotamaa 2021, Whitson 2018, Kultima 2018, O'Donnell 2014). The paper argues for more research into collaborative work across kinds of game development teams.

Game development is commonly organized as team productions with delegated roles and responsibilities. Popular literature on game development assumes such an order to develop appropriate methods and pedagogy (Keith 2020, Chandler 2020). As a result, some authors emphasize that professionals need to acquire communication skills to make games competently (Fullerton 2018, Lemarchand 2021). However, it remains difficult to specify the distinctly collaborative dimensions of tasks, situations, actions or attitudes on game teams. As a result, *collaboration* remains elusive yet widely used in literature and job postings. Research should aim to better regard competency in the field, and explore the social contingencies and practical skills encountered in game development.

From design research, we place importance on *problem setting* for directing practitioners' use of skills and learning in a practical environment (Chiapello 2018, Kuittinen & Holopainen 2009, Stolterman 2008). Donald Schön argues it "… is a process in which, interactively, we frame the things to which we will attend and frame the context in which we will attend to them" (Schön 1992, 40). Members must engage

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with various points of view when framing and naming problems involving a whole team. This motivates the paper's focus on interactions between members: People often become able to detect differences and similarities across problem formulations from discussion (Dillenborg 1999, Argyris & Schön 1996, Nonaka 1994). From observing a game team, we can study the ideas unique to their practice for refining a work form.

CASE STUDY

The data comes from a case study that was conducted by the author of this paper with an 8-person team at the game company Triband in Copenhagen, Denmark. The field work lasted 10 weeks from January 31st to April 8th 2022 as part of their thesis project. The goal of the original study was to understand how members participate in a creative team effort to produce their computer game *WHAT THE BAT?*. The game was released according to plan on November 17th 2022.

The team consisted of one 3D artist, two designers, three programmers, one director, and one project lead. Every two weeks, the team would ideally have finished early-stage development of a *chapter* for their game, consisting of several playable *levels*.

To introduce their evaluation, the team would adapt a *sprint retrospective* method from agile management methodology at the end of every week (Derby et al. 2006). This lasted 30 minutes. Members would each write personal notes on a digital whiteboard according to three columns addressing the team: start, stop and continue. The team would do this in silence for around 7 minutes. Afterwards, the project lead would go through the notes with the team to initiate discussion.

FINDINGS

For this retrospective, the author participated remotely and recorded a video. The director and one programmer were not present. The team were gathered in the same room with two members taking part remotely. Overall, they were challenged this week from working under different conditions than previously. They did not manage to complete all of the work. 1) The team only had one week instead of two to finish a chapter; 2) The team worked on older prototyped levels of lower quality, instead of creating new ones from scratch; 3) the director and project lead were unable to attend the production during most of the week; 4) some members became ill during the week. When members became ill, others were left with more work when the workload didn't change. When lead members weren't around, members couldn't inquire into the prototypes, or by extension, assess the workload, when they found the quality to be lower (Figure 1, p.3).

The session reflected the members' inquiry for naming these obstacles dialogically: to *express* their experiences, *explore* others' perspectives, and *exchange* interpretations of problems and solutions. Members highlighted similar causes that contributed to complicate the week, such as when Programmer 1 and Programmer 2 compared their written notes about working with lower quality prototypes. There was room for inquiring into others' experiences, such as when Designer 1 asked more into the cause of Programmer 1's frustration. Potential solutions were also weighed against the experiences of members. This would sometimes lead to resolution, such as when Designer 1 said they could have communicated something better. Other times, it would lead to deeper investigation of the problem, such as when Programmer 1 dismissed the project lead's solution by saying they didn't know exactly how to solve the problem. The presentation will go into greater detail on how such interactions structured the deliberation for the team as a whole.

Figure 1: Part of the retrospective board. The project lead wrote the yellow notes during discussion.

Overall, the paper suggests they were able to collaborate from expressing, exploring, and exchanging perspectives to set priorities with each other. The paper compares this with Jennifer Whitson's account of a team of intern game developers (2018). Interns experienced difficulties with articulating and aligning their individual work in a team, unable to reflect on underlying social conflicts. Contrastingly, members at Triband detected issues with coordination and unclear expectations for this week, and this was dependent on members reciprocating multiple viewpoints in conversation and as part of the exercise. In the presentation, the author will highlight social contingencies for productive member participation in this exercise and for this particular team. The author will discuss implications for future research towards analyzing collaboration and competency in professional game development. Specifically, the author proposes field work across both inexperienced and experienced teams.

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