

On the Fields of Justice: The Emergence of Teamwork in *League of Legends*

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Introduction

Teamwork; love it or hate it, all people deal with it. In today's increasingly interlinked world, no one person can do everything alone. Whether it is closing on a major business deal, coordinating lesson plans for a school day, or running an experiment in a lab, most careers require coordination and teamwork among co-workers to achieve optimal efficiency and results. Developing these skills has been a subject of interest for many researchers over the years resulting in many team-based interventions being implemented in educational environments.

With the relatively recent development of online game environments, many researchers have also begun to investigate elements of leadership and teamwork that emerge during in-game group interactions and how to potentially utilize those aspects to teach highly sought collaborative skills. If researchers and educators are starting to consider utilizing online game environments to train skills and teach content, then it becomes increasingly necessary to investigate all aspects of interaction within these worlds, both positive and negative, to determine how best to implement and design educational game environments.

Research Questions

This exploratory study investigates the following questions:

- [1] How is teamwork encouraged and inhibited in *League of Legends*?
- [2] How can these observations inform instructional game design?

Literature Review

Teamwork

Much has been written on the importance of developing teamwork skills, especially in higher education, to prepare students for the working world (Feichtner & Davis 1984; Dunne & Rawlins, 2000; Pfaff & Huddleston, 2003; McCorkle et al., 1999). A number of teamwork skills and capabilities are expected of those seeking employment. As Feichtner & Davis (1984) put it, the "most important single factor is that as the business environment has become more complex, the ability of any one person to cope with it satisfactorily has been greatly reduced" (p. 58).

Essentially, in today's working world, no one person can accomplish everything by him or herself. A person needs to be able to trust in and coordinate with team members to carry out tasks. McCorkle et al. (1999), however, warn about one danger of distributed workloads in that "when students have their work divided for them or divide work themselves, the possibility exists that each student only learns only about his or her area of specialization" (p. 38). In addition to trusting in others, one must also understand what everyone else is doing as well in order to ensure cohesive team productivity.

Of particular importance in recent years is the ability to cooperate cross-culturally in this increasingly globalized world. Pfaff and Huddleston (2003) mention that "it is important for students to learn to work with and form relationships with others who are not like themselves" (p. 38). A case-study written by Lee-Kelley & Sankey (2008), however, mentions a number of issues encountered within cross-culturally teamwork. Some chief issues included: unclear roles and responsibilities, difficulties coordinating across time zones, cultural differences, dissonance due to time and pressure, trust on delivering, and training.

Lee-Kelley & Sankey (2008) specifically mention that "the general agreement is that the ability to work at a distance with colleagues from diverse cultural backgrounds came only with experience and is part of the 'on the job training'" (p. 59-60). When it comes to working cross-culturally, the main method of practice is by actually doing it on the job, when the stakes are higher. There are few if any risk free environments that promote cross-cultural teamwork and collaboration.

Of late, many researchers have also begun to investigate leadership and teamwork encountered in virtual environments (Williams, 2006; Yee, 2006; Jeng & Teng, 2008; Chen, 2009; Wolfenstein 2010). The literature mentions many of the skills employed by leaders in games. Williams (2006) mentions that GMs (guild masters) facilitate social support in terms of small-scale leadership and ethics, disputes, scheduling, and philosophies on the larger-scale (p. 350). Yee (2006) also discusses the roles of a leader in an MMORPG writing that “administrative tasks include: role assignment, task delegation, crisis management, logistical planning, and how rewards are to be shared among group members. Higher-level strategy tasks include: motivating group members, dealing with negative attitudes, dealing with group conflicts, as well as encouraging group loyalty and cohesion” (p. 32).

As mentioned by some authors, there is also the possibility to learn some of these leadership skills from others during game-play. As Williams (2006) notes “for some, guild leadership was an extension of their life at work that naturally transferred to the game world” (p. 355). Yee (2006) mentions that “there are very few activities, hobbies or games in real-life where you find people with ages ranging from 11 to 69 interacting and collaborating to achieve shared goals” (p. 35). Both Yee and Williams illuminate the existence of a great network to potentially learn leadership skills from while playing. A survey analyzed by Yee reported a 50-50 split among players asked if they felt an improvement in their leadership skills.

Though it may seem insignificant that only around 50% of those surveyed perceived any gains from game-play, Yee mentions that it is “remarkable for MMORPG environments that were not designed to teach leadership skills and have no structured pedagogical goals or curriculum” (p. 34) to have any perceivable gains at all. Most notably, the group that reported the most significant amount of experience gains was the 18-24 year-old bracket—those whom many higher education teamwork programs aim to train (Yee 2006, p. 34).

In addition to potential gains in leadership skills, some authors have investigated the importance of teamwork in game-play. Yee (2006) mentions that “all roles have strengths and weaknesses, and a successful group is one where all members take full advantage their own strengths while mitigating the vulnerabilities of their teammates” (p. 29). Chen (2009) comments that “success depended on the ability of our group members to coordinate our efforts and maximize group efficiency by having each member take on a specialized role” (p. 47). As these two authors note, an important factor of teamwork is understanding the strengths and weaknesses of all team members and using that information efficiently to coordinate optimally.

Communication has been cited as an invaluable component of virtual teamwork and a necessity to ensure successful operations (Iacano and Weisband, 1997). Williams (2006) discussed how many raid groups utilize voice over internet protocols (VoIP) to chat while Chen (2009) primarily recounts the use of multiple, specialized text channels and voice software to coordinate team actions (p. 58). Chen (2009) also comments on how communication and reflection on failures are vital to a team’s ultimate success (p. 69).

League of Legends

This study examines teamwork featured in a game minimally explored in the literature, *League of Legends (LoL)*, a multiplayer online battle arena (MOBA) video game developed by Riot Games. This article focuses on *LoL* because of the highly team-motivated aspects of gameplay and the incredible number of active users of the game. *LoL* was first released in 2009 and has since then become the most played game in the world by hours played per month according to Riot Games. As most recently reported in November 2012, *LoL* boasts 70 million registered users with 32 million listed as monthly active users (MAU) and 12 million daily active users (DAU). To place this in perspective, Xbox Live has 40 million monthly subscribers and *World of Warcraft* had 12 million monthly subscriptions at its peak (1). *Farmville 2*, the currently most played Facebook game, has 48 MAU and 8.7 DAU in comparison (2). *LoL* is played all over the world with servers in North America, Europe, Brazil, Turkey, and Asia.

Observations

The Metagame

As mentioned, *LoL* is a game that relies on teamwork in order for players to achieve victory. Players most commonly play casual 5v5 matches by teaming up with people they know or by being individually placed in a solo queue to be paired with random players. Like in the content found in many MMORPGs, an individual player cannot carry an entire team to victory alone. As will be discussed later, each player on a 5-person team is expected to fulfill a certain role as dictated by *LoL*’s metagame. *LoL* differs from MMORPGs though in that players do not develop their own individual characters over the course of hours of play. Instead, players select from 100+ individual champions with set skills, roles, and lore and customize these characters according to their expected roles with items purchased throughout the course of a game.

Each character fulfills certain roles as outlined by *LoL*'s metagame. These roles correspond with the battlefield in *LoL* which consists of three main lanes: top, middle (mid), and bottom (bot) and a jungle area that lies between the three lanes. In a typical team arrangement, one champion goes "solo top", one goes "solo mid", two "go bot", and one "jungles". Depending on the level of play, some teams may not have a "jungler" and may have two champions who "go top" together.

"Welcome to Summoner's Rift": Building a Team

Where this information matters the most is in the creation of teams in the pre-game lobby. Players are encouraged and often expected to pick champions that will best fit with the team dynamic. It is discouraged for players to instantly "lock in" a character without consulting with the team and can create for tense playing environments when one player is uncooperative in such a way (4). The following screenshots of pre-game lobbies illustrate the aspects of communication exhibited in a game of *LoL*.

The first screenshot features 2 players, presumably 2 friends playing with each other, stating that they want to play in the same lane. Since the character Ashe typically does not play alone in a lane, another player asks the one playing Ashe if that is an acceptable situation. The one playing Ashe says it is ok though the player responds somewhat hesitantly (see Figure 1 Left).

In the second screenshot, one player is playing as a character that can potentially be built as a tank. The player, however, states that he is not capable of playing a tank and does not want that expectation to be placed upon him thereby disappointing his teammates. One other player proposes that another character (Taric) could perhaps build as a tank. Another player declares that that Taric will be the tank for the team. The person playing Taric agrees but inquires about the best way to fulfill his role (see Figure 1 Mid).

Lastly in the third screenshot, one player asks another player if he knows how to jungle, since they already have 2 champions in the top lane and having a jungler is preferred for team composition. The asked player responds that he does, but prefers not to because he has only had negative team experiences playing as a jungler. The other player accepts the response and does not inquire further (see Figure 1 Right).

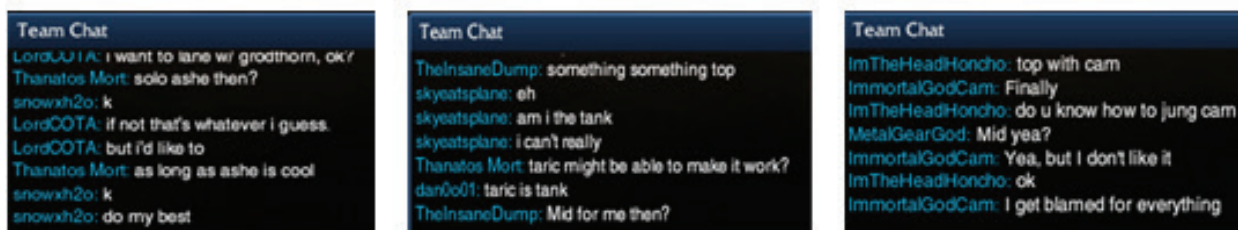


Figure 1: Pre-Game Lobby Screenshots

What is important to learn from these observations is the necessity for utility in a player's skill set and an understanding of all of the positions that can be played. If a player is unable to fit the team's composition, then the chances of a team's success become diminished. By being flexible with play-style and understanding how to play all positions and what each position does, a player is able to better coordinate with other teammates, creating a better cooperative team environment. Such universal understanding of all team members' roles is crucial for collaborative success (McCorkle et al., 1999).

"Tactical Decision, Summoner!": Communication

In *LoL*, as in any team-oriented environment, communication is key to achieve optimal results. As *LoL* is an online game with many teammates often playing from different location, communication is a skill that requires more coordination than one may typical require in a face-to-face situation. Included within the game are two options for communicating: in-game chat and the smart ping system. Players also use Voice over Internet Protocols such as Skype, Google Hangouts, and Curse Voice to verbally communicate. Lastly, Players engage in Face-to-Face



Figure 2: Types of Communication in *League of Legends*

“Justice!”: Community Development

From my observations, I have come to understand that *LoL* features a player base notorious for mean-spirited behavior. A large part of this hostility may stem from the duration of play-time and the anonymous and random mechanics behind team pairings. In comparison with MMORPGs which feature lengthy end-game content which can range from 2-8 hours in duration (Chen, 2009), an average match in *LoL* lasts about 30-40 minutes.

Since players who are playing by themselves are placed on teams with random people and considering that there are about 12 million DAU, the chances of encountering another player in a match a second time are astronomically low. In a raid, teams tend to be coordinated so that one tends to be familiar with other players participating in the raid with some strangers participating on the occasion as well. If these strangers are found to be poor team players, then those involved in the raid will ensure that they do not raid with that player again. In that regard, there is a degree of social accountability expected for players if they want to participate in large group play.

Since players only interact with each other for a short span of time and since there is no degree of social accountability for players to consider on account of the random team placements there is no need to be civil towards another player. To counter such a mentality from consuming the whole player base, Riot incorporates both a reporting and honor system, both of which are featured in the post-game lobby.

After a game ends, players may report players who they believe conducted themselves poorly during the match. Players are allowed to file reports for a number of reasons including dropping from the match, verbally abusing other players, or playing poorly. These reported players are then investigated by a jury of their peers in what is known as the Tribunal. Players who are level 20 or higher are able to examine the reports filed against a player and decide whether or not that player should be punished or pardoned accordingly.



Figure 3: The Honor and Reporting System in *League of Legends*

From Master Yi to Wu Kong: Expert-Novice Interaction

In addition to the pre-game lobbies, there are also post-game lobbies in which players complement or criticize players on their actions in a game. The adjacent screenshot details a telling moment of interaction between two players who were on the opposing team as seen in Figure 6. In this exchange, one player offers advice to the player who chose Diana as his champion. He tells him that he needs to use his ultimate ability more often and then advises him on how to do that effectively. The champion Diana is able to use an ability know as “Crest Strike” which, as another player comments, reduces the amount of time required to wait for her ultimate skill to be ready again (aka cooldown). This constructive feedback, especially after a losing match, was particularly interesting to observe as most post-game commentary tends to be deprecating rather than helpful (see Figure 2). Understanding how to encourage such constructive expert-novice interactions prove beneficial for developing instructional game environments (Yee, 2006; Williams, 2006).

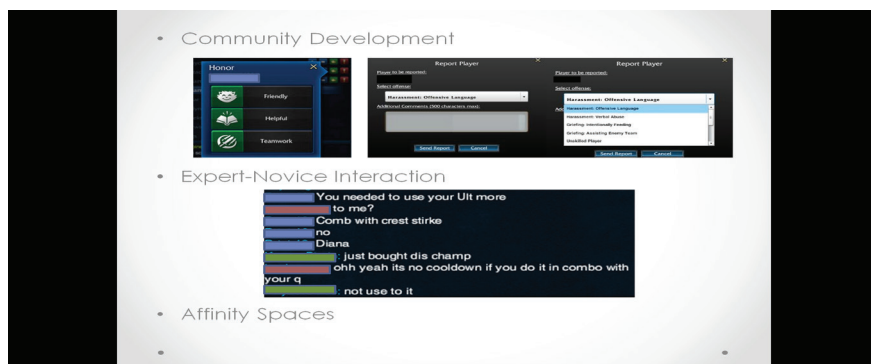


Figure 4: Expert player advising novice player

The Honor system is a form of positive reinforcement implemented by Riot Games in order to encourage players to work well together and promote a friendly and insightful learning environment. These honors include: “Friendly”, “Helpful”, “Teamwork”, and “Honorable Opponent”. Currently, there are no in-game bonuses for accruing honors. Players who do receive a number of honors do receive aesthetic ribbons for their player accounts though how one acquires such commendations is not information disclosed by Riot. Riot mentions that they are exploring more ways to reward those who receive numerous accolades.

Beyond the Battlefield: Affinity Spaces

In addition to the information that can be learned in game and from the official website, many guides have been created by players that detail the roles that each champion can fulfill and what items a player would purchase to build the champion in the appropriate way. Two websites that host these build guides are www.mobafire.com and www.solomid.com with some of the guides they feature receiving 1 million+ hits. In addition to character build guides, players have also posted guides intended to assist new players in getting acclimatized to the game. Of note from this guide were some of the opening words which state “do not expect a a game, where you can go all out solo and expect to get killing spree after killing spree. It is a teamgame and it should be played as a teamgame”. From the very beginning, more experienced players want newer players to learn that team-play is at the core of the game and there are expectations for all those who chose to participate.

Additionally, one guide encountered on mobafire was of particular interest for the purpose of this study. The guide entitled “General guide how to build morale, and how to lead”(6) written by a player named glizdka describes 17 different player attitudes one may encounter while playing a game of *LoL*. In this guide, glizdka suggests optimal ways to work with these types in order to lead and facilitate teamwork. Glizdka also suggests ways in which a player can develop into a “natural leader”, the ideal type of player who is able to lead a group of 4 random teammates to victory. These include targeting objectives, managing teamfights, giving advice on battles, showing them the way to build their characters, and complementing them when they are successful. In order to be such a leader, though, the player needs a good working knowledge the game, making this guide not as relevant to newer players. The creation of the guide, however, does emphasize the communities’ encouragement of team-play and cooperation.

Conclusion

As mentioned by Jenkins et al. (2006), collaborative problem solving is a skill crucial for students to practice and learn in order to participate in 21st century working environments. Collaborative problem solving entails “working together in teams, formal and informal, to complete tasks and develop new knowledge” (Jenkins et al., 2006, p. 3). As illustrated by this study’s observations, online games offer the groundwork for environments in which players can practice such collaborative skills. Additionally, as mentioned, online games also offer the potential for interaction between novices and experts who can work together to understand and create new knowledge. Online educational game environments can also produce environments that could provide much needed practice and training for cross-cultural teamwork.

There are, however, some potential complications that may arise in the development of online educational game environments. Random team compositions may prove detrimental in some cases if not monitored. To enhance team-play experience, user anonymity should be avoided as much as possible so players may act more accountable for their actions. Modes of communication should also be strongly considered in the development of a platform. As mentioned, communication is what tends to make or break a team. How the understanding and generation of content will actually be implemented in such game environments is also a looming question for educators, researchers, and game designers. Whether that should be the purpose of some educational environments is also another question to consider as well.

If some educational environments may potentially become digital, then interactions among users of those spaces must be observed in order to better inform design. Regardless of whether or not such spaces will be created for educational purposes though, investigating such game environments will still prove beneficial for the understanding of teamwork. With improved understanding perhaps teamwork may one day become something we all could learn to love.

Limitations

Some limitations of this study derive from the fact that it was only conducted by one individual making only pure observations. The observer did not conduct any interviews or distribute any surveys to ask for outside, player feedback. Additionally the observer is a relatively new player of the game and was unable to experience much of the inner workings of player vs. player content in *LoL* where increasingly more player interactions take place. Additionally, software prohibited data collection as the observer was unable to obtain chat logs of play where a great deal of communication takes place.

Endnotes

- (1) http://majorleagueoflegends.s3.amazonaws.com/lol_infographic.png
- (2) <http://www.gamesindustry.biz/articles/2012-10-16-riot-president-make-the-s-in-riot-games-mean-something>
- (3) <http://na.leagueoflegends.com/board/showthread.php?t=207449>
- (4) Having “Riot” in one’s username indicates that the player is an employee of Riot Games.
- (5) [League of Legends - A guide for beginners and other people](#)
- (6) <http://www.mobafire.com/league-of-legends/build/general-guide-how-to-build-morale-and-how-to-lead-209226>

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