Facets

5 Motivation Factors for Why People Play MMORPG's

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Introduction

Apart from exploring a previously unmapped territory, the Norrathian Scrolls demonstrated that different players play EverQuest for very different reasons. For example, male and female EQ players seemed to be motivated by different goals. In broad strokes, male players seemed to be more driven by achievement, while female players were more drawn to the social aspect of the game. But it was equally clear that not all male players are driven by achievement, and not all female players are driven by the social aspect. The question that then emerges is whether we can find more fundamental differences among players that are not based on gender, age or personality differences. In other words, can we identify fundamental differences without first using gender, age and personality to construct differences?

The fundamental question is "What do people want out of a game?". And while we can paint those broad strokes with gender for example, it is hard to build a robust model of player differences upon such a generalized and dichotomous model.

The reason for wanting to construct a robust model of player differences is that it then allows us to use this solid foundation to build upon. It allows us to categorize and cluster motivations

for playing in meaningful ways. And once we have a clear view of what those different motivations are, we can then ask questions such as:

- What elements of a game are most and least important to each motivation?
- How do players driven by different motivations interact?
- When a game is overwhelmed by players of a particular motivation, how does the dynamic of the game change?
- When a new game ships out, which players are most likely to leave?

Bartle's Types

I used Bartle's 4 types as a starting ground to brainstorm possible underlying motivations. Bartle elaborates on these 4 types in his paper - Hearts, Clubs, Diamonds, Spades: Players Who Suit Muds (http://www.mud.co.uk/richard/hcds.htm). Here is a brief summary of Bartle's 4 Types:

- **Achievers** are driven by in-game goals, usually some form of points gathering – whether experience points, levels, or money.
- **Explorers** are driven to find out as much as they can about the virtual construct – including mapping its geography and understanding the game mechanics.
- **Socializers** use the virtual construct to converse and role-play with their fellow gamers.
- **Killers** use the virtual construct to cause distress on other players, and gain satisfaction from inflicting anxiety and pain on others.

Bartle weaves a fairly elaborate model on how these different types interact with other, as well as how the balance of these different types will cause drifts to occur in the player base. While elegant and cleverly modeled, Bartle's types were not constructed from empirical data, but rather, from a long discussion among MUD wizards.

One problem with such a just-so model is that the 4 types may overlap. For example, it may be the case that most Achievers are Explorers, because to advance in levels quickly, one has to know about the game mechanics. Another problem is that the types may not be well-constructed, and may include unnecessary traits and exclude important traits. For example, perhaps the Achiever scale should be based upon a desire for power rather than points accumulation. Or perhaps, mapping geography is not that important to most Explorers who are actually much more interested in the game mechanics.

The problem of employing a just-so model is that it becomes self-fulfilling. If a questionnaire is constructed such that a respondent has to choose between being an Achiever or an Explorer, then the end result will be a dichotomy where none may exist to begin with. It would be like asking – Do you prefer pizza or ice-cream?

Nevertheless, Bartle's preliminary model serves as a good starting point, and gives us a foundation on which to understand underlying motivations, as well as a model to test against empirical data.

Method

I used Bartle's types and data from the Norrathian Scrolls to come up with a set of statements that covered a large range of possible motivations. Under each Bartle type, I brainstormed all related behaviors and motivations I had noticed in my previous studies, and I also added an additional factor that I felt Bartle had not covered. What I wanted to do was to create hypothetical factors and see whether empirical data would validate them or suggest some other more natural grouping. In other words, just because I have grouped items the way I have below doesn't mean that the data will validate that grouping. Here are the basic factors I brainstormed from:

1) Socialize
    a. Conversation
        i. I find myself having meaningful conversations with others.
        ii. I usually don't chat much with group members.
    b. Relationship Formation
        i. I have made some good friends in the game.
        ii. I find myself soloing a lot.
    c. Humor
        i. I like to say funny things in group/guild chat.
    d. Support
        i. I talk to my friends in the game about personal issues.
        ii. Friends in the game have offered me support when I had a RL problem or crisis.
    e. Leadership
        i. I am an effective group leader.
        ii. I would rather follow than lead.
2) Achieve
    a. Power-Seeking
        i. I like to feel powerful in the game.
        ii. Doing massive amounts of damage is very satisfying.
    b. Goals
        i. I constantly try to set and reach goals.
        ii. I can't stand those people who only care about leveling.

     c. Accumulate
         i. It's very important to me to get the best gear available.
         ii. I try to optimize my XP gain as much as possible.

3) Explore
     a. Mechanics
         i. I'm fascinated by the game mechanics, and love charts and tables.
         ii. I research everything about a class before starting the character.
         iii. Class-balancing or realm-balancing issues do not interest me.
         iv. This game is too complicated.
     b. Cartographer
         i. I like wandering and exploring the world.
         ii. I would make maps if they weren't available.
     c. Self
         i. I have learned things about myself from playing the game.
     d. Group
         i. I understand real-life group dynamics much more after playing the game.

4) Escape
     a. Escape
         i. I like the escapism aspect of the game.
     b. Immersion
         i. I like to be immersed in a fantasy world.
     c. Vent
         i. Playing the game lets me vent and relieve stress from the day.
     d. Withdraw
         i. Playing the game lets me forget some of the real-life problems I have.
     e. Role-Play
         i. I like to try out new roles and personalities with my characters.
         ii. The way I am in the game is the way I am in real life.
         iii. People who role-play extensively bother me.
     f. Story-Teller
         i. I like the feeling of being part of a story.
         ii. I make up stories and histories for my characters.

5) Grief
     a. Manipulate
         i. I like to manipulate other people so they do what I want them to.
     b. Dominate
         i. I like to dominate other characters/players.
         ii. I am uninterested in player-killing.
     c. Deception
         i. I scam other people out of their money or equipment.
     d. Annoyance
         i. I like to taunt or annoy other players.

6) Misc
     a. I beg for money or items in the game.
     b. It's important to me to achieve things with as little help from other people as possible.
     c. It's just a game.

These 40 statements were randomized and constituted the first half of the questionnaire. 30 Big-5 inventory items constituted the second half of the questionnaire. Respondents were also asked to indicate their age, gender and hours played per week.

The questionnaire was publicized at websites related to EverQuest, Dark Age of Camelot, Anarchy Online, and Asheron's Call. Data collection began on 3/1/02, and about 6700 valid responses were collected over a period of a week.

Respondent Demographics

Of the 6700 responses, 5486 (82%) were EQ players, 1044 (15%) were DAOC players, 68 (1.0%) were Anarchy Online players, and 83 (1.2%) were Asheron's Call players. I attribute the lower response rate of the latter 3 games to my poorer understanding of where the most heavily-frequented websites are. But I received a much higher than expected EQ response rate because EverLore.com had my listing at the top of their news list over the entire weekend.

About 11% of the respondents were female.

	Male	Female	Row Total
EverQuest	4816 (88%)	660 (12%)	5476
Dark Age of Camelot	973 (94%)	66 (6%)	1039
Asheron's Call	78 (94%)	5 (6%)	83
Anarchy Online	63 (94%)	4 (6%)	67
Overall	5930 (89%)	735 (11%)	6665

The average age of the respondents was 26.7 (N=6631). Female players were significantly older than male players (T[6615]=-12.31, M_{male}(5891)=26.3, M_{female}(726)=30.5, p<.001).

	Average Age	Row Total
EverQuest	27.0	5436
Dark Age of Camelot	25.6	1037
Asheron's Call	25.5	81
Anarchy Online	26.5	67
Overall	26.7	6621

On average, the respondents played their game for about 24 hours each week. Female players played significantly more hours per week than male players (T[6612]=-3.27, M_{male}(5888)=23.8, M_{female}(726)=25.7, p=.001).

	Average Hours per Week	Row Total
EverQuest	24.3	5434
Dark Age of Camelot	23.2	1038
Asheron's Call	18.5	82
Anarchy Online	21.3	68
Overall	26.7	6622

Factor Analysis Intro

Given a set of variables, a Factor Analysis tries to form coherent subsets that are as independent from other subsets as possible, but where each variable in the same subset is as highly correlated as possible. Thus, variables that are correlated with one another and which are largely independent of other subsets of variables are combined into factors. Factors can then be thought of as the more fundamental features that are measured by the variables.

For example, if we administered a large battery of tests to high school students which included: addition, multiplication, analogies, reading comprehension, symbol matching, symbol rotation and so on, we might be able to extract 3 factors which might be labeled as: Mathematical, Verbal and Spatial processing abilities. Thus, tests of addition and multiplication are highly correlated, but are largely uncorrelated to tests of analogies or reading comprehension.

There are 2 features of Factor Analysis to be aware of. First of all, the extraction of factors depends on the measured variables fed to the analysis. Thus, if the measured variables do not represent the entire spectrum of variation, then the extracted factors will not cover the entire range of possible motivations. In other words, you cannot carve a pie so that you end up with more of it than you began with.

Secondly, a Factor Analysis tells you how well particular variables fit into specific factors, but the factors are not then labeled for you. In other words, one has to come up with the appropriate labels for each factor after understanding which variables load heavily into each factor. Oftentimes, it is hard to come up with a label that encapsulates all the underlying variables of a factor.

Factor Analysis Results

A factor analysis was performed on the dataset, and 5 significant factors were extracted.

Factor: Relationship	Facet	Factor Loading
I find myself having meaningful conversations with others.	Conversation	0.62
I have learned things about myself from playing the game.	Learn	0.57
I understand real-life group dynamics much more after playing the game.	Learn	0.55
I have made some good friends in the game.	Friendship	0.68
I talk to my friends in the game about personal issues.	Support	0.68
Friends in the game have offered me support when I had a RL problem or crisis.	Support	0.68

Factor: Immersion	Facet	Factor Loading
I like to be immersed in a fantasy world.	Immersion	0.52
I like wandering and exploring the world.	Immersion	0.48
I like to try out new roles and personalities with my characters.	Role-Playing	0.65
People who role-play extensively bother me.	Role-Playing	-0.55
I like the feeling of being part of a story.	Story-Telling	0.56
I make up stories and histories for my characters.	Story-Telling	0.62

Factor: Grief	Facet	Factor Loading
I like to taunt or annoy other players.	Annoy	0.69
I beg for money or items in the game.	Beg	0.55
I like to dominate other characters/players.	Dominate	0.71
I like to manipulate other people so they do what I want them to.	Manipulate	0.66
I scam other people out of their money or equipment.	Deceive	0.68

Factor: Achievement	Facet	Factor Loading
It's very important to me to get the best gear available.	Accumulate	0.64
I try to optimize my XP gain as much as possible.	Accumulate	0.65
I like to feel powerful in the game.	Power	0.59
Doing massive amounts of damage is very satisfying.	Power	0.53

Factor: Leadership	Facet	Factor Loading
I am an effective group leader.	Leading	0.63
I would rather follow than lead.	Leading	-0.58
I usually don't chat much with group members.	Interaction	-0.48
I find myself soloing a lot.	Interaction	-0.44

I was concerned that my overall result might be skewed by an unrepresentative sampling of the player base, but I reran the factor analysis for male players and female players separately, and found no difference in the outcome. I also reran the factor analysis for EQ and DAOC players separately, and again found no difference in the outcome. Therefore, even if I had the correct ratio of female players (closer to 14-16%) or of DAOC players (about 1:3 EQ players), the factors would still have been the same.

One thing to be clear about is that the 5 factors extracted are not 5 player types. It is not the case that we have found evidence for an Achiever type or a Grief type. The 5 factors are 5 different underlying motivations for playing that are independent of each other. And in the same way that a student can score high in both a Mathematical and Verbal test, it is also the case that an EQ player can score high on Achievement and Grief at the same time. The appropriate way to think about these 5 factors is that each gamer has a score for each factor, and that looking at all 5 scores allows us to understand a lot about why a particular gamer plays the game. In a sense, they are facets of the same core object – they each describe a different aspect of a person. Again, don't think about these 5 factors as boxes to categorize players in.

The 5 Motivations

In no particular order:

Relationship: This factor measures the desire to develop meaningful relationships with other players in the game – usually in the form of a supportive friendship. Players who score high on this factor usually make good friends online, and tend to have meaningful conversations with their online friends, which usually involves talking about real-life personal issues. In times of need, these players can usually count on their online friends for emotional support. These players also tend to feel that they have learned things about themselves from playing the game, as well as gaining a better understanding of real-life group dynamics.

Immersion: This factor measures the desire to become immersed in a make-believe construct. Players who score high on this factor enjoy being immersed in a fantasy world they can wander and explore. They tend to role-play their characters, and use their characters to try out new personalities and roles. They enjoy being in the company of other role-players. They also appreciate the sense of being part of an ongoing story, and oftentimes will think up a personal history and story for their characters.

Grief: This factor measures the desire to objectify and use other players for one's own gains. Their means may be both outward or subtle. On the outward side, they may enjoy dominating other players by killing them on the battlefield, or by taunting and annoying them. On the more subtle side, they may enjoy manipulating other players for their own gains, such as deceiving other players through clever scams, or begging for money and items. In either case, the satisfaction comes from some form of manipulation of other players for personal gain.

Achievement: This factor measures the desire to become powerful within the construct of a game. Players who score high on this factor try to reach the goals as defined by the game. They try very hard to accumulate rewards. For example, they try to optimize their XP gain to reach the next level as quickly as possible. Or they may try to accumulate as much high-level gear as possible. Or they enjoy doing massive amounts of damage to mobs. The underlying theme is a desire to get bigger numbers. But the satisfaction comes from feeling powerful.

Leadership: This factor measures the gregariousness and assertiveness of the player. Players who score high on this factor prefer to group rather than solo. They are often assertive individuals and usually drift to leadership positions when in a group. Because a group led by an indecisive leader often gets fragmented, the assertiveness of these players probably allows them to be effective group leaders in the game.

Revisiting Bartle's Types

The factor analysis shows that Bartle captured 3 motivations fairly well, however, the data also shows that Bartle either included an unrelated element or excluded a related element in each case.

Bartle emphasized conversing, interacting and role-playing in his Socializing type. The factor analysis shows that while conversing with other players is part of the Socialization motivation, it should be focused on relationship formation instead. And the real appeal seems to be the intimacy and support that can be gained from such relationships. The factor analysis also revealed that role-playing should not be placed under this motivation, but in a separate factor altogether.

With regards to the Achiever type, Bartle focused on points accumulation – whether this be experience points, skill points, levels or equipment, and this part of the Achievement

motivation does pan out in the factor analysis. But the data also pointed out that the underlying motivation is to gain a sense of power within the construct of the game, and that points accumulation may just be a means to this end.

When Bartle talks about Killers, he focuses on the satisfaction gained from causing distress to other players. The factor analysis reveals that causing distress may be the more extreme end of a Grief motivation that gains satisfaction from using other players for one's own gains. And that this motivation should also include the more subtle tactics of manipulation and deception.

What was very interesting was to not see the Explorer type validated. It was clear that if the Exploring motivation did exist, that the interest in mapping the world and understanding the game mechanics were unrelated. I felt that I had perhaps constructed poor statements for this motivation, and switched several statements into the questionnaire after 6700 responses had been received. I then received another 500 responses, and tried to see whether the following statements might validate an Exploring motivation that focused on game mechanics:

1. I like to think about class-balancing issues.
2. I try out a lot of things to experiment with the game mechanics.
3. I try to find bugs I can exploit.
4. What fascinates me is finding out how stuff works in the game.
5. I like numbers, charts and tables.

The smaller data set was not significantly different from the larger one in terms of age and gender composition. The factor analysis on this data set also did not validate the Explorer type. In particular, none of the above 4 statements correlated above (0.20). However, statements 1, 4 and 5 had weak loadings on the Achievement factor, but the loading was too weak to be considered significant (.21, .27, and .37 respectively).

Tying it Together

Once we have these 5 motivations validated, we can begin to look at how they relate to personality, age and gender among other things.
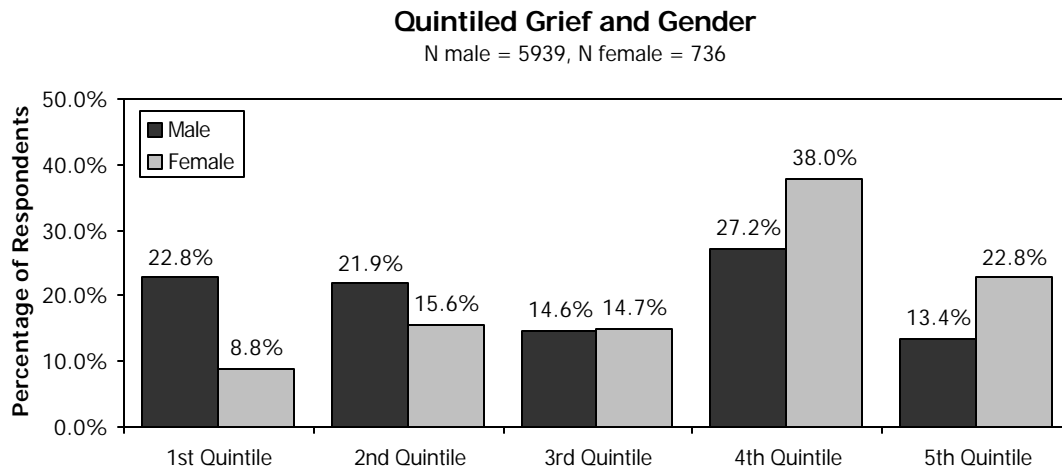
Male players scored significantly higher than female players on Achievement (T[6673]=14.8, M_{male}(5939)=7.42, M_{female}(736)=6.65, p<.001). The percent of male and female players in each quintile of the Achievement factor is shown here.

**Quintiled Achievement and Gender**
N male = 5939, N female = 736
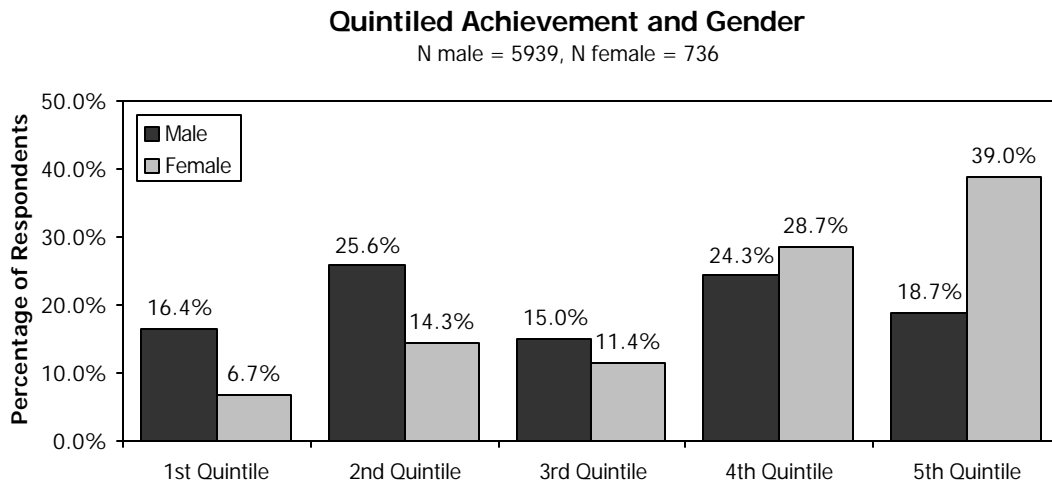
Female players scored significantly higher on Relationship than male players (T[6673]=-11.1, M_{male}(5939)=6.70, M_{female}(736)=7.30, p<.001).

Quintiled Relationship and Gender
N male = 5939, N female = 736
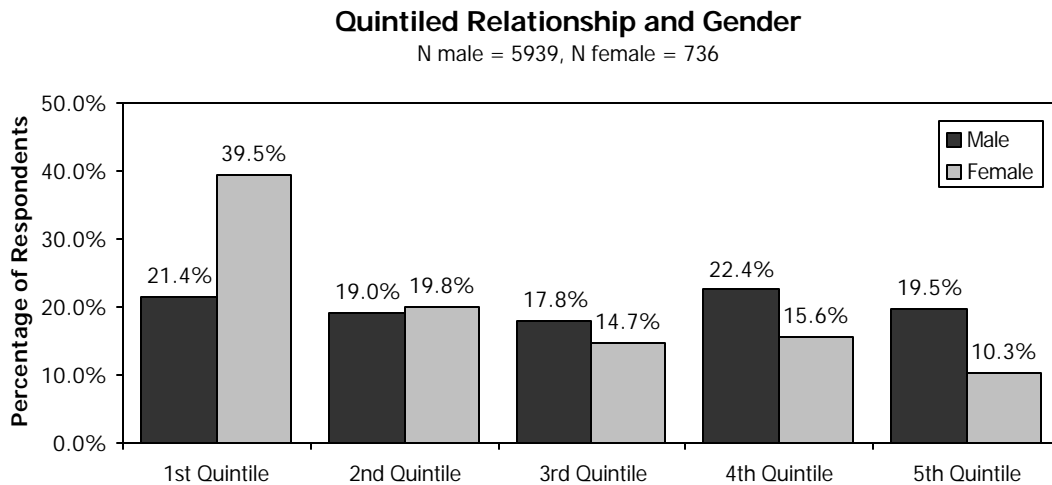
Male players scored significantly higher on Grief than female players (T[6673]=11.1, M_{male}(5939)=3.49, M_{female}(736)=2.96, p<.001).

Quintiled Grief and Gender

N male = 5939, N female = 736


Female players scored marginally, but significantly, higher than male players on Immersion (T[6673]=-3.99, M_{male}(5939)=7.37, M_{female}(736)=7.56, p<.001).

Quintiled Immersion and Gender

N male = 5939, N female = 736
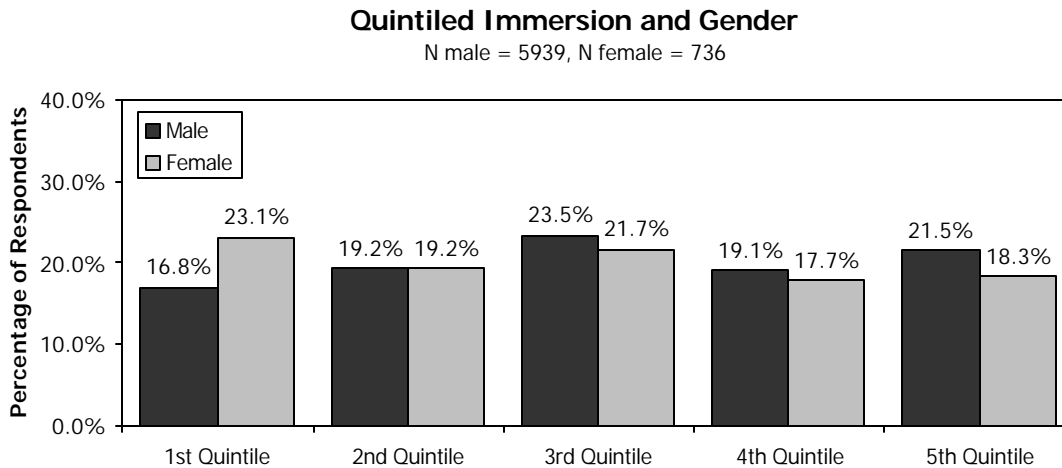
Male and female players did not score significantly differently on Leadership.

Among male players, age was negatively correlated with Grief (r=-.32) and Achievement (r=-.23). In other words, older male players tend to score lower on these two motivations than younger players. Among female players, the correlations were much weaker and none were above (r=+/-0.20).

Finally, I correlated the motivations with hours played per week to see whether any of the motivations would be a good predictor of time spent playing the game. It was found that the Relationship motivation was the most correlated with hours played per week (r=0.24). The surprising thing was that this correlation held true to for both male and female players when the correlation was run again for both groups separately (r=.24 and r=.25 respectively). The average hours played per week for male and female gamers in each quintile of the Relationship factor is shown here. Notice that about a 10 hour difference in hours played per week for both male and female players can be accounted for by this factor alone.

Quintiled Relationship and Hours per Week by Gender
N male = 5939, N female = 736
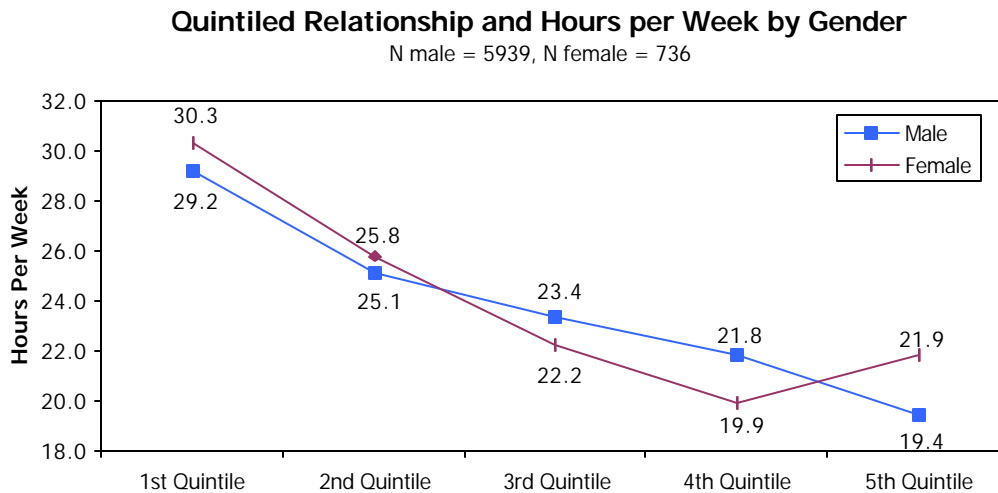
None of the other motivations correlated at higher than (r=0.10).

Final Thoughts

The important thing to remember is that these are not player types. It is not the case that we have found a way to categorize players into different boxes. Rather, we have found several distinct motivational facets that are meaningful and empirically tested constructs. Each individual player has a score for each factor, and it is after looking at the scores of all 5 factors that we can get a good idea of what part of an MMORPG appeals to them. Just because a player scores high on Achievement doesn't mean they will score low on all the other factors.

Therefore, a questionnaire constructed to measure these 5 factors must not force players to choose between one of several motivations, but rather, statements representing each factor should be presented to the respondent separately.

These 5 factors should also be considered as a preliminary empirical model of player motivations. It is very possible that certain important parts of the spectrum were not explored, and that future research will suggest to us what we might have missed. What we have gained from this dataset, however, is a meaningful way to talk about differences in player motivations. We know what should be and should not be clustered together when we talk about particular motivations. And this gives us a more solid foundation to build future research upon that explores how these different motivations affect in-game behavior patterns.