

Differences in Enjoyment and Preference of *WoW* Player with Different Economic Backgrounds

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Abstract

World of Warcraft (WoW) is one of the most successful games among the MMORPG genre; with its 11.5 million subscribers, *WoW* has diverse population of players from across the world. This article looks at two specific demographics of *WoW* players, occupation and income, and how these two demographics relate to player choices and enjoyment of *WoW*. The data used in this article is collected through a survey posted on *WoW* forums and *WoW* Facebook groups. Primary character race and class are compared using different occupational categories and incomes. Furthermore, short answer responses to the question “What made you choose your race and class” are analyzed to see the common reasons for selecting character race and class. The article also looks at how important *WoW* is as a source of happiness to players among different occupational fields and incomes.

Introduction

The game, *World of Warcraft (WoW)*, is one the most successful MMORPGs created among its gaming-genre. As of December 23, 2008, about a month and a half after the release of the expansion, *Wrath of the Lich King*, *World of Warcraft* has 11.5 million subscribers worldwide (Blizzard Entertainment, 2008). *World of Warcraft* has been subject to many research studies in the context of games and culture because of its widespread popularity and success among the MMORPG genre.

Effects of Player Demographics over Character/Class Choices

World of Warcraft has a wide array of choices a player can partake in. In the game, there are 10 character races in which a player can choose from, each race has their own special abilities and traits, as well as a unique storyline a player can progress through. Depending on the race a player chooses, he or she will be separated into either the Horde or Alliance faction. Moreover, a player has the choice to pick different classes that pertain to specific races in the game. Game variety is something that *World of Warcraft* does not lack.

Even with all the different character choices available in *World of Warcraft*, the in-game demographics are unevenly distributed. Players in the game—especially new players—favor the Alliance faction; the ratio of Alliance to Horde is roughly 2 to 1 (Ducheneaut et al., 2006). This could be that the Alliance is seen as the “politically correct” faction (Ducheneaut et al., 2006). In addition, the Human and Night Elf races—which are part of the Alliance faction—are significantly more widely selected compared to other races available in the game (Yee, 2007). Compared to the other races, the Night Elves and Humans look the most appealing in terms of their stature, and perhaps that is the reason why many players choose these two races. In terms of character class distribution, there is a very significant difference between Shaman (about 5.2%) and Warrior (about 16.5%) (Ducheneaut et al., 2006). It is pretty obvious, based on the results from past studies that player preferences have led to a scarcely diverse population of characters in *World of Warcraft*.

The heavy concentration in specific parts of in-game demographics often has a relation to a player’s own social background, gender, culture, etc. For example, in a survey of race choices ($N=3355$) of females and males, the most selected race by female players is the Night Elves ($n=796$), while for male players it was the human race ($n=2559$) (Yee, 2007). Generally speaking, the surveyed males have humans as the most selected of races, but in the age range of

11-17 for males the most selected race is Night Elves (Yee, 2007). Players of different demographics could potentially be influenced by these demographics to have certain preferences in the game, and specific player demographics could be used to look at why players have these preferences.

World of Warcraft: A factor of happiness?

Even though *World of Warcraft* is rated “Teen” by ESRB, the average age of a WoW player is 28.3 ($SD=8.4$); which goes to show that *World of Warcraft* has attracted more than just teenagers as subscribers (Yee, 2005). Based on another survey ($N=2834$), a majority of WoW players are full-time workers (Yee, 2003). Considering that people with full-time jobs willingly spend a portion of their time playing *World of Warcraft* indicates that this game offers a value of enjoyment beyond just the audience of young gamers. A study by Nick Yee has shown that many players of *World of Warcraft* play the game for therapeutic uses, as well as a way to build social skills (Yee, 2008). The amount of enjoyment a player can derive from *World of Warcraft* is most likely different for people of different ages and backgrounds: a person with a full-time job might feel differently playing *World of Warcraft* compared to a full-time student.

Although there are quite a few studies on different demographics and player preferences in *World of Warcraft*, many of these studies look at the social influences and physical demographics of players, but none look at the economic influences or relations to player preferences. The purpose of this study is to specifically look at the incomes and occupations of the players in *World of Warcraft* in relation to choices players would make about character customization, and to also compare incomes and occupations in relation to the level of happiness a player derives from playing *World of Warcraft*. The study will specifically concentrate on

income and occupation as the independent variables; therefore, these two variables will be the main focus of this study. There are countless number of other variables that influence character choices and happiness derived from playing *World of Warcraft*, so if any correlations or trends exists for income and occupation as independent variables, it will be more likely that these two variables act better as predictors than influential factors. This study will try to verify if income and occupation have any relation to a player's experience in *World of Warcraft*; if such correlations exist, it can be valuable for MMORPG games designers, as it will show them the general trend of what players with different occupation and income prefer in the game. This will allow game designers to incorporate different elements which are preferred by the players of different occupations and income brackets to attract more players and increased profitability.

Method

Participants

As this research project is focused exclusively on the massively multiplayer online role-playing game (MMORPG) *World of Warcraft*, only gamers playing *World of Warcraft* were targeted. Responses from 84 participants were collected using an online survey. Out of the 84 participants, 63 were male with an average age of 21.79 years ($SD = 10.46$) and the remaining 21 female respondents had a mean age of 22.08 years ($SD = 10.94$). The geographical location and ethnicity was ignored for the purpose of this research under the assumption that the players' location and ethnicity has minimal impact on their in-game decision making process compared to their occupation and annual yearly income. There were a total of 81 survey participants, but 8 survey participants were excluded from the results due to incomplete answers and answers that seem to be falsely reported. Examples of falsely reported answers observed in the responses

include participants with an income of 2.345×10^{109} dollars per year, 1337 level 80 characters, and playing *World of Warcraft* for 40471 hours a week.

Survey

A survey was designed using the “Form” feature of Google Documents and was distributed in a similar manner as to Yee’s “The Demographics, Motivations, and Derived Experiences of Users of Massively Multi-User Online Graphical Environments” survey (Yee, 2006). The online survey was posted on *World of Warcraft* discussion forums on Blizzard’s network; however, unlike Yee’s method, the survey link was only kept active for a 7 day period to accept responses due to time constraints. Moreover, the survey was also posted on the class website, as well as Facebook groups related to *World of Warcraft*. The survey was posted on varying networks with the aim of collecting responses from a diverse population; in this case, gamers from varying age groups, income brackets, and professions.

The survey itself consists of 17 questions, of which 7 were multiple choice questions that asked the respondents’ gender, occupation, race, class and gender of their avatar, and how long they have played *World of Warcraft*. Also, there were 6 open-ended questions that asked the respondents’ age, annual income, weekly hours worked, weekly pay, and the total number of level 80 characters they had made in the game. Then the respondents were asked to compare the importance of playing *World of Warcraft* as a source of happiness with school/college and occupation on a Likert scale from 1 to 5; 1 being not important and 5 being the most important. Finally, the respondents were asked to describe why they decided to pick their primary avatar.

Analysis

The gender distribution of the respondents were calculated in order to see if any relationship exists between the in-game choices made by males and females of different occupation and income brackets. Nominal data such as the respondents' occupation, gender, and the race and class of their avatars were coded into number in order to calculate inferential statistics. Descriptive statistics such as the means of the respondents age, weekly hours spent playing *World of Warcraft*, weekly hours spent at work or school/college and annual income were also calculated along with their respective standard deviations to show the variability in the data collected. The aggregate data along with the raw data collected were used to calculate simple correlations between all the variables in order to identify whether any relationships existed between these variables. Furthermore, the respondents' answers to the open-ended question were categorized into 7 different categories: Appearance, Specific Reason, Abilities, Personality, Trial & Error, Recommendations, and Others. The categories were looked at to see what factors players considered when selecting their own avatars in the game. Key words and phrases within the responses were used to categorize the responses; the number of responses for each category was converted into a percent of the total population ($N = 73$).

Results

A majority of the participant population ($N = 73$) listed student as their occupational category. Males are the dominant gender among the survey participants ($n = 58$). The annual income of the survey participants ranged from \$0 to \$2,000,000. Of the 73 participants of the survey, only 1 participant had an income of \$2,000,000; while the rest of the participants had an income below \$150,000. The two charts below show the occupation distribution (Figure 1 & 2).

The survey failed to yield *World of Warcraft* players who worked in the educational and agricultural field.

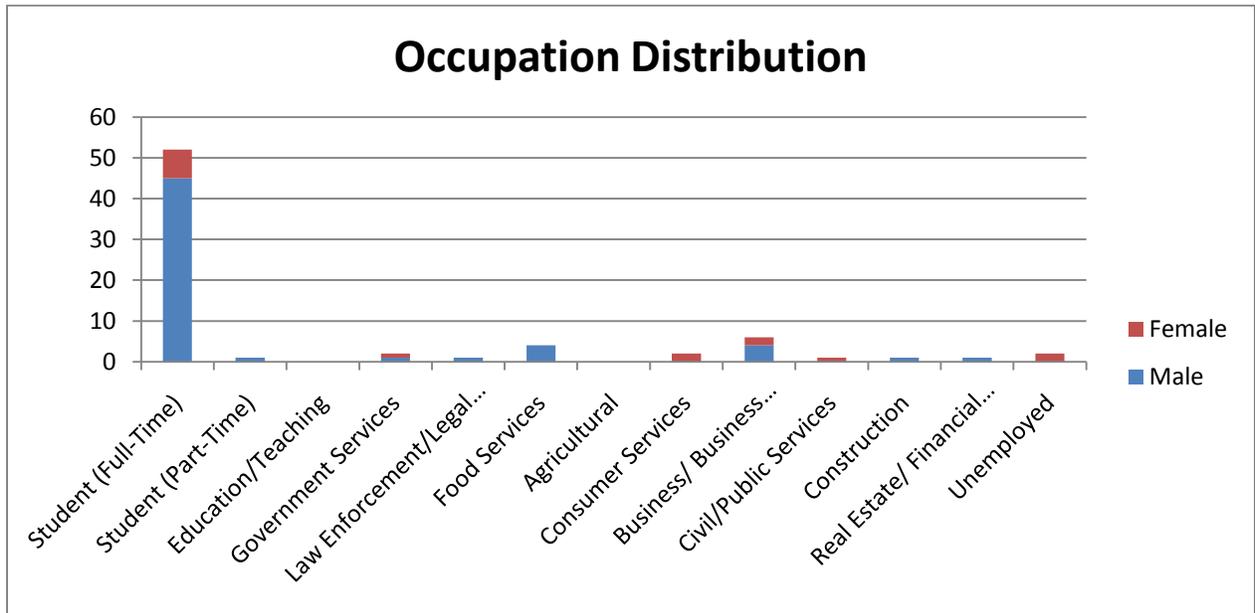


Figure 1: Occupation Distribution based on Gender.

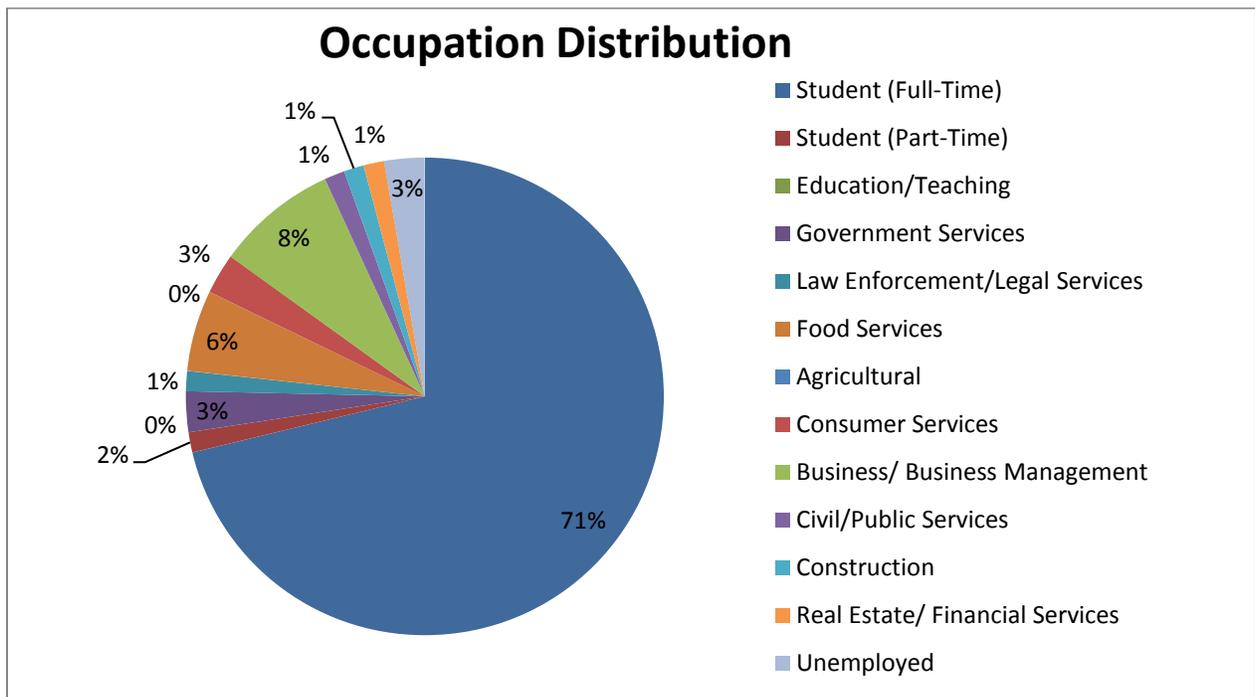


Figure 2: Occupation Distribution of total Population (N)

Impact on Avatar Race and Class

The findings on race distribution are on par with “The Demographics of Game Choices” (Yee, 2007). About 20.55% of the respondents reported that the race of their primary avatar was Night Elf, followed by 17.81% who selected Human. Moreover, the most popular class appears to be the Warrior class (18.18%), followed by the Druid class (14.29%).

Income

The mean annual income of the 73 respondents were \$ 42,684.37 ($SD = \$273,151.73$). However, if the major outlier of \$ 2 million for annual income were to be excluded, the mean would be \$ 14,515.35 ($SD = \$27,062.28$). Simple correlations between respondents’ annual income and avatar race and class were calculated. The results were not significant; the correlation coefficients between respondent’s annual income with avatar race and class were 0.060 and 0.128 respectively. These values were calculated without the \$2 million outlier because it caused the correlation coefficients to vary significantly in an inaccurate way. Moreover, there is no significant correlation between the number of Level 80 characters of respondents with their hourly wages ($\rho = 0.197$) and weekly hours worked ($\rho = 0.159$).

Occupation

The highest frequency among the occupational categories observed was Full-time Students (73.24%), which led to a weak correlation between the occupation and the number of Level 80 characters ($\rho = 0.324$). The results of other correlation coefficients between respondents’ occupation with avatar race and class were 0.160 and 0.000 respectively. There were no significant correlations between respondents’ gender with their avatar race ($\rho = 0.038$)

and class ($\rho = 0.006$). The charts below show the avatar race (Figure 3) and class (Figure 4) distribution of the population.

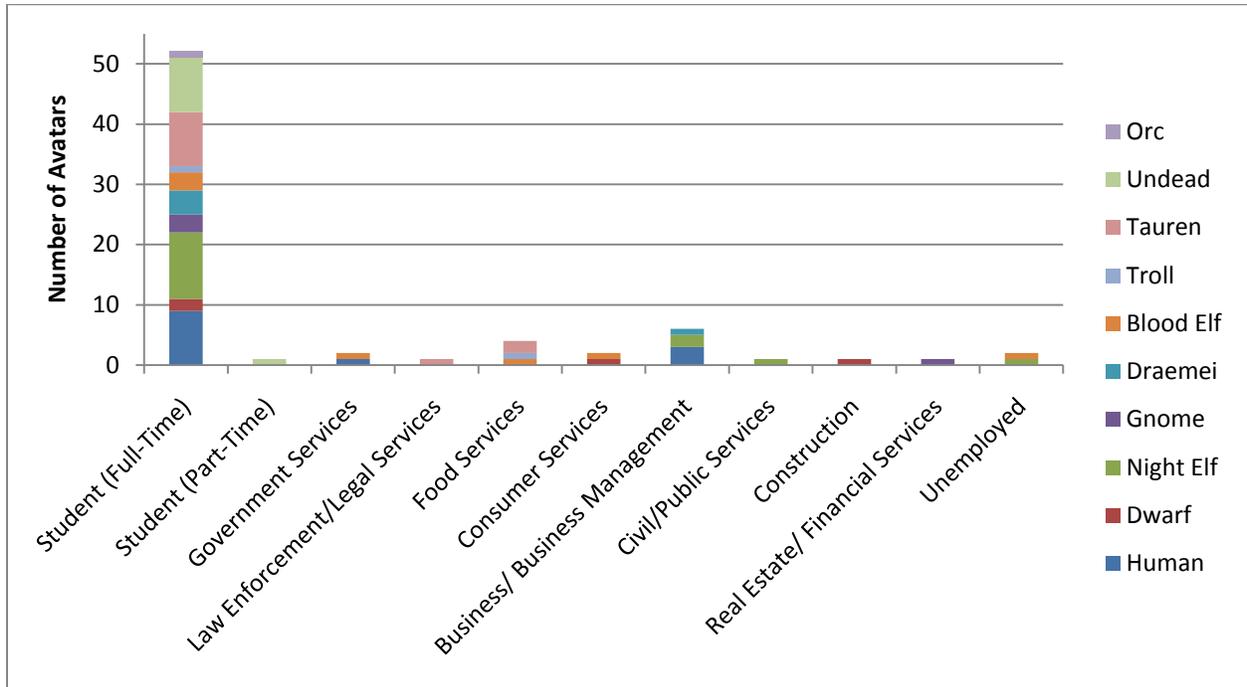


Figure 3: Race Distribution

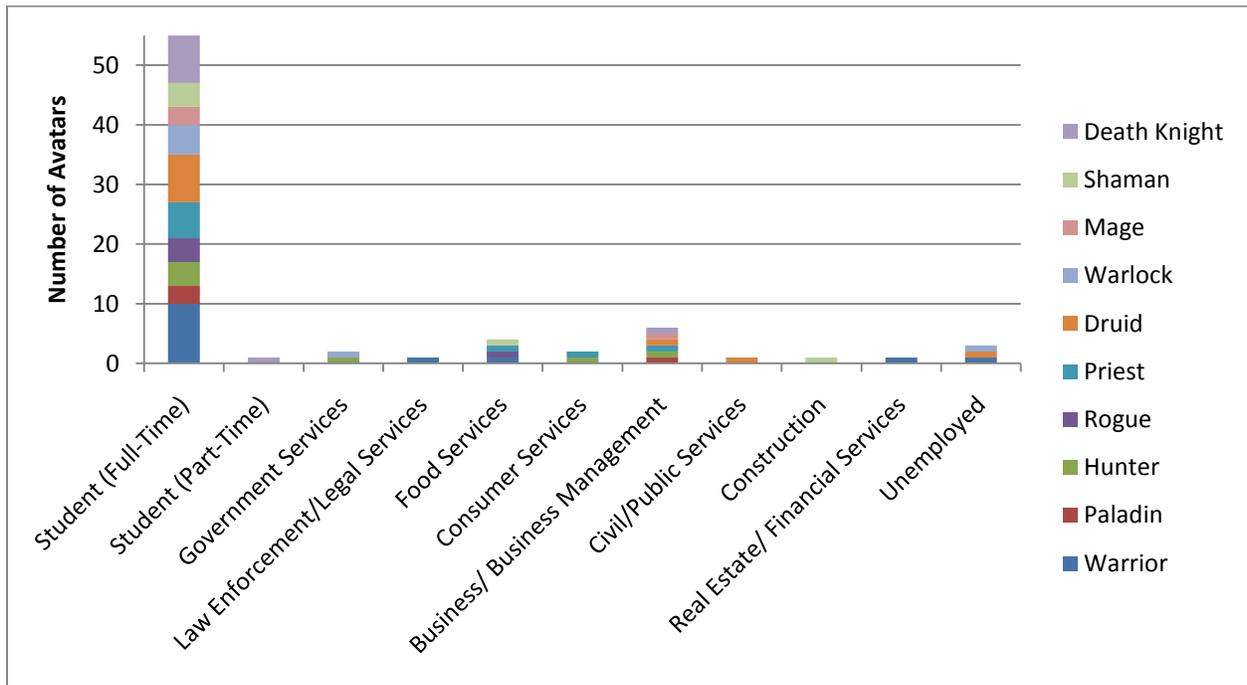


Figure 4: Class Distribution

Character Choice

Respondents were allowed to respond freely to the open-end question about their character choice. As stated above in the methodology section, the responses were classified into different categories based on words and phrases used in the response.

Appearance

The vast majority of the respondents (63.03%) chose their primary avatar based solely on the appearance. Respondents frequently stated that their avatar looked “tough,” “cool,” and in some instances “badass.” Examples of a few responses were:

because nightelves and tauren are badass nuff said (Male, 25, Draemei, Business Management)

Tauren are beast, and look boss in Warrior armour. (Male, 22, Tauren, Law)

Abilities

A significant amount of the respondents (15.06%) stated that they chose an avatar based on specific abilities the avatar possessed; this reason was the second most commonly observed among the respondents compared to the other 6 categories. The ability most stated among the responses was “shape-shifting.” Examples of a few responses were:

night elf = awesome and hunters have pet that fight along your side. (Male, 38, Night Elf, Business Management)

The reason I picked druid was that I have a fascination with shapeshifting. If you were to ask me what super power would I have, it'd be shapeshifting. (Female, 20, Night Elf, Student (Full-Time))

Specific Reason

Some respondents (4.11%) selected their avatars based on specific reasons not pertaining to character appeals or advantages. These specific reasons were majorly related to a player's friends' choices and guild needs:

Only picked alliance because my friends were there. (Male, 19, Blood Elf, Food Services)

The guild my friend was in needed mages and they were an alliance guild. (Male, 22, Human, Student (Full-Time))

Gamer Personality

About 4.11% of the respondents stated that they chose their avatar based on their own personality. These respondents chose a specific race and class based on a particular or general representation an avatar portrays in relationship to a player's preferences and nature:

I decided a female night elf because they most closely resemble my body in real life. I chose a druid because I'm an animal in bed. (Female, 18, Night Elf, Civil/Public Services)

I wanted to play a character that I haven't played. And my friend wanted me to try a shaman. So I was looking at what character I should be and I wanted to be a tharen.

Because I know that they are one with the earth. And I wanted to be someone that cared

like me. So that's how I chose my Main character to be a tharen shaman. :-) (Male, 18, Tauren, Food Services)

Trial & Error

A respondent (1.37%) indicated that they were not content with their character choices and had to play with multiple combinations of race and class before they settled on an avatar for their primary character.

Tried out all of the classes until I found the one I liked the most. (Male, 17, Night Elf, Student (Full-Time)).

Recommendations

About 6.85% of survey participants chose their characters based on recommendations from friends and other players. A majority of answers usually involved a guild, group, and friends who recommended a specific character type:

Wanted to be night elf, cousin said nelf hunters are noobs, picked dwarf. (Male, 19, Dwarf, Student (Full-Time))

I was recommended the hunter class by a friend of mine, though I also am very partial to priests because I like playing the healer. I like to play BEs and NEs because they're pretty: 3 (Female, 20, Night Elf, Student (Full-Time))

Other

Responses that did not involve any player preferences while selecting a character, random ways of selecting a character, and invalid responses fall in the “other” category. These responses compose about 5.48% percent of the total responses:

No real reason just random. (Male, 13, Night Elf, Student (Full-Time))

I"Z DON" T KNOW (Male, 14, Human, Student (Full-Time))

I took this survey as if it were a year ago. I was working at a bank and hated my life, but would go home and play wow every night. I wasn't in school so that was not applicable
(Male, 25, Human, Business)

Happiness derived from playing *World of Warcraft*

One of the purposes of this study was to look at how *World of Warcraft* players thought of the game as a part of their happiness based on different occupational categories and income amounts. Survey participants were asked to rate, on a Likert scale from one to five, the importance of *World of Warcraft* to their happiness, one being not important and five being very important. From the results of the survey ($N = 73$), the average of all the ratings were 3.34 ($SD = 1.23$) for the importance of *World of Warcraft* as a source of happiness. The average rating among females ($n = 15$) is 3.40 ($SD = 1.24$), and for males ($n = 58$) the average rating is 3.33 ($SD = 1.23$). The results indicate that there is not a significant difference in the importance of *World of Warcraft* to one's happiness among females and males.

Occupation

One of the main focuses of this study was to look at how *World of Warcraft* players considered the game as a part of their happiness based on different occupational categories the

player belongs to. Each occupational category was coded into specific numbers and used to calculate the correlation coefficient with the importance of *World of Warcraft* to one's happiness; the results showed that there was not a significant correlation between the variables ($\rho = 0.1395$). But, the average rating for happiness derived from playing *World of Warcraft* varied among the different occupational categories (Figure 5). The lowest happiness rating derived from playing *World of Warcraft* came from the unemployed category ($M = 2$, $SD = 1.41$, $n = 2$), while the highest rating came from the construction category ($M = 5$, $SD = 0$, $n = 1$).

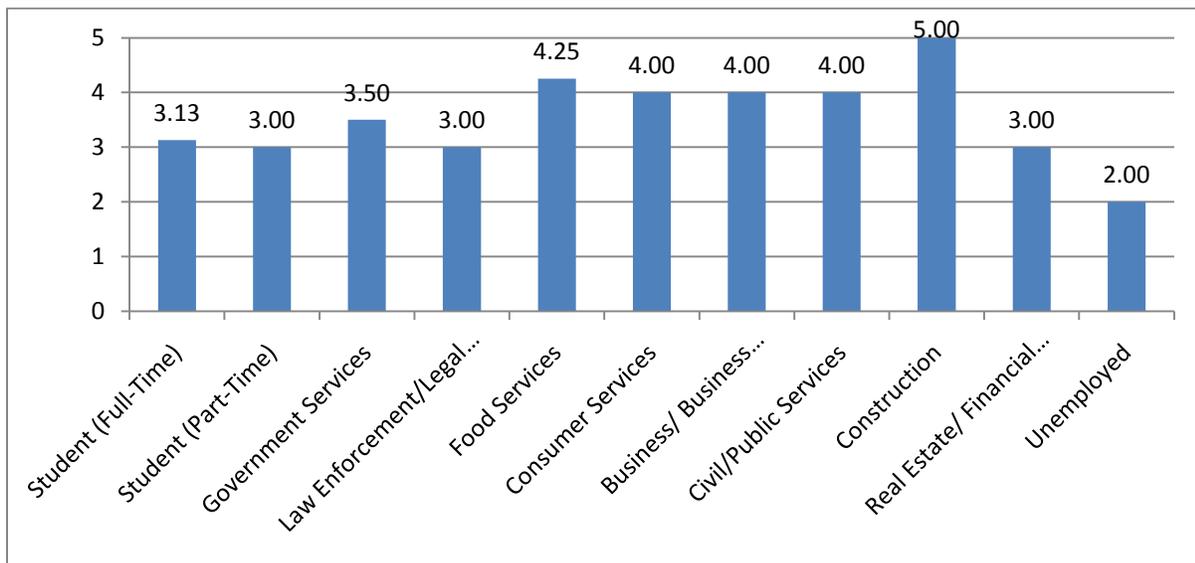


Figure 5: Average Rating of *WoW* Happiness among Different Occupations

Income

Another relationship that the survey was crafted to look for was the amount of annual income and the amount of happiness players derived from playing *World of Warcraft*. The results of annual income were compared to the happiness rating derived from playing *World of Warcraft* by looking at the correlation between the two variables ($\rho = 0.170$). Once again, the

calculation of this correlation coefficient does not include the \$2 million outlier. The correlation coefficient value indicates that income has no significant correlation to happiness derived from playing *World of Warcraft*, meaning that annual income does not have a relation to nor is it a predictor of how much happiness a player derives from playing the game.

Comparison with Job and School happiness Factor

The ratings for job and school happiness were compared with the happiness derived from playing *World of Warcraft*. The average happiness factors for *World of Warcraft*, school and jobs were 3.34 ($SD = 1.23$), 3.51 ($SD = 1.32$), and 3.16 ($SD = 1.28$) respectively. The average happiness rating for school and jobs were compared with *World of Warcraft* happiness rating. This showed that there is a direct relation between happiness derived from playing *World of Warcraft* and happiness derived from work. This essentially means that gamers who derive more happiness from their jobs are more likely to derive more enjoyment from playing *World of Warcraft* as well. This relationship can be seen by the trend line on figure 6. Also, the aggregate data showed an inverse relationship between happiness derived from playing *World of Warcraft* and happiness derived from school or college activities. This suggests that players who are attending school or college on a full-time or part-time basis derive less enjoyment from playing *World of Warcraft*. The downward sloping trend line on figure 7 illustrates this inverse relationship.

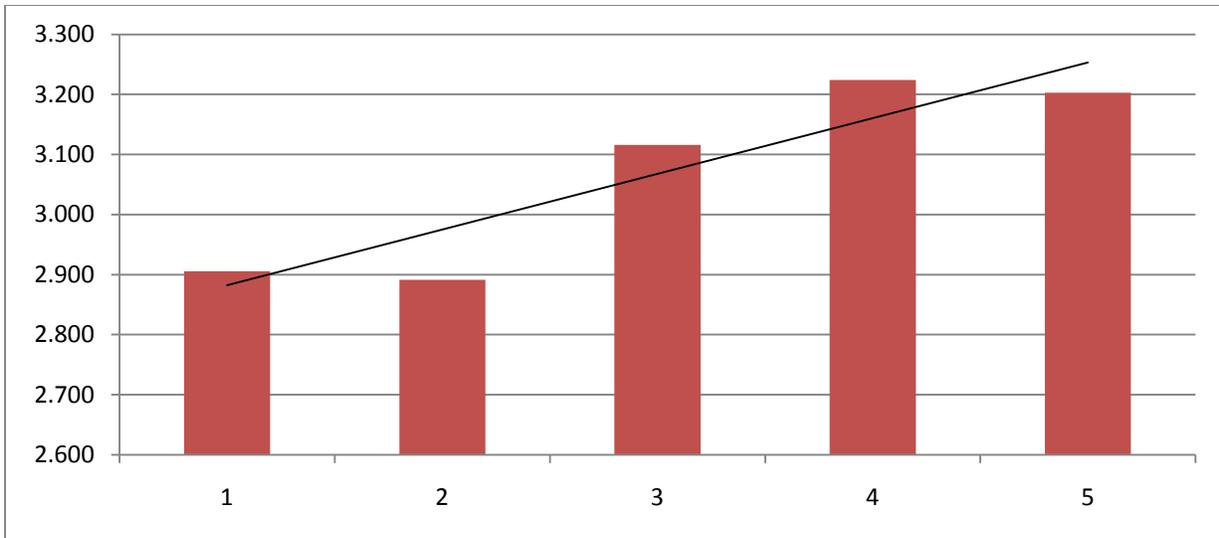


Figure 6: Average Job Happiness compared to WoW Happiness

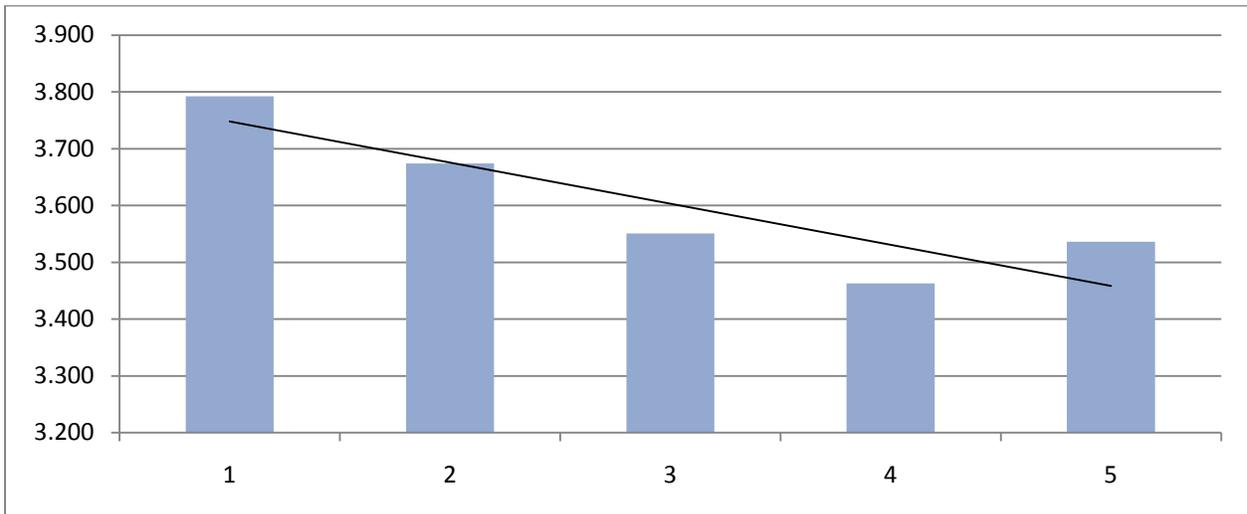


Figure 7: Average School/College Happiness compared to WoW Happiness

Discussion

Even though considerable efforts were made to collect data from a diverse pool of gamers, the survey was mostly answered by full-time students. This suggests that student gamers visit *World of Warcraft* forums on Blizzard's network with a higher frequency compared to

gamers of other occupations. As a result of this, the results were skewed, as shown by the 0.324 correlation coefficient between Level 80 characters and occupation.

Although no significant statistical relationships emerged from the data collected, it did validate Yee's results regarding character choices. As discussed above, the findings of this research very closely resembles Yee's finding in the article "The Demographics of Game Choices" (Yee, 2007). However, from the qualitative data, an interesting pattern was observed. A vast majority of the players indicated that they chose their primary character based on the appearance of the avatar. The second most favored criteria appeared to be the abilities of the avatar. This could be valuable information for game designers, as the graphics and the abilities of the different avatars they design play an important role on which avatars are used in the game by players. The responses show that the visual models of avatars, particularly their appearance, are very influential in the process of selecting a character.

One of the interesting relationships that were seen through this study is the relation between the degree of happiness derived from playing *World of Warcraft* and player occupation. According to figure 5, players involved in the construction industry derive the most happiness from playing *World of Warcraft*. This could imply that people who engage in more physical labor in their jobs enjoy the game more. Such players could play the game for its relaxing properties as highlighted in Yee's article, "On Therapy and Dependency" (Yee, 2008). Furthermore, players who were unemployed derived the least amount of enjoyment from playing *World of Warcraft*. This could possibly indicate that if a player is not satisfied in real life, it will be difficult for him or her to find satisfaction in a virtual world. A person's occupation can be seen as a source of fulfillment, and being unemployed in real life could prove too difficult to offset with enjoyment gained in a virtual world.

The finding illustrated on figures 6 and 7 could be a possible indication that *World of Warcraft* is more enjoyable for gamers with paid occupations, possibly because they use the game as a device for relieving stress or even as an “escape” (Yee, 2008). This can also explain the inverse relationship between happiness in school and *World of Warcraft*; students using the game as an “escape” might spend too much time playing *World of Warcraft* and, therefore, may not have adequate time to complete their tasks for school. As a result, they may not perform as well in school, which will lower their happiness derived from attending school. However, these are mere speculations, and research in this field could be undertaken in the future to test the accuracy of these assumptions.

Limitations

Although some findings were procured from this study, there were many limitations in the data collection process; therefore, the findings of this study are unlikely to be an exact representation of the actual *World of Warcraft* population of players. Given the constraints of time, the survey only had a week to collect data. As a result, this survey was only posted on *World of Warcraft* forums and Facebook groups; there was not enough time to evenly distribute the survey among the population of *World of Warcraft* players. The diversity in participants reflects this limitation. There were only 73 valid responses, and of these responses 71% of the respondents were composed of students. Therefore, a lack of diversity among the survey population is the result of skewed data and also one of the major limitations of this study.

Future Prospects

This research primarily focused on very broadly defined occupations; therefore, it fails to take into account the preferences of players from specific lines of work. In other words, future research could be conducted to observe the preferences of gamers working in different types of specific jobs within these broadly defined occupations. Also, findings of this research suggests that gamers who work in physical labor intensive occupations enjoy playing *World of Warcraft* more compared to gamers from other occupations. Therefore, future research could be conducted to test this hypothesis by comparing the game preferences of players that work in more labor intensive jobs compared to those who are in lesser labor intensive jobs within these broad occupational categories.

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