

STAT430 Project 1

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1. Conducting a survey to check to answer the main question of whether Age, Gender and Employment affect a person's time spent playing video games in a week? I also want to see that if any of these things do affect the time spent playing then what are the numbers? Furthermore, an additional, not as important, but fun questions I wanted to answer was what is most people's preferred gaming platform? The survey was conducted over multiple sub-reddits and through the STAT430 class.

The Variables in Question in my survey were:

1. Gender
2. Employment
3. Hours Spent gaming per week
4. Age

Note: All survey questions for this part have been attached below.

2. The different Conclusions, we can reach from the plots and the descriptions shown In part 4.
 1. Men spend a lot more time playing video games than women do (Refer to Figures 7,8 and 11).
(Figure 7) This plot shows us the distribution of males and females and the time they spent playing video games. It shows us a few outliers and implies that males within the age range of 15-25 spend a lot more time gaming than women of the same age range do. These men spend around 5 to 30 hours gaming per week, whereas women only spend 0 to 5 hours per week.
(Figure 8) To confirm the above implication, we plot the average time both males and females spend playing video games. From the results we can easily conclude that on average men, spend more time playing video games than women do.
 2. Employees on average spend more time playing video games than students and that Part-time Employees Spend more time playing than full time ones. (Refer to Figures 9 and 10).
(Figure 9) The plot implies that for the most part (disregarding the outliers), both students and employees (whether part time or full time) spend a similar amount of time playing video games. Also, as we saw in the previous plot, most people who play video games are within the age range of 15-25. (Figure 10) To check the implication of whether or not the above statement is true that both students and employees (whether part time or full time) spend a similar amount of time playing video games, we find the mean value of hours spent playing games for students and both employment types After looking at the above results, we actually see that employees on average spend more time playing video games than students and that Part - time Employees Spend more time playing than full time ones but the difference between the two employee types is minimal so this is what we conclude.

3. Age does not effect time spent playing video games (Refer to Figures 11 and 12).

(Figure 11) Looking at the results it seems like age does not effect how much time is spent playing video games as the above plot shows that the time spent playing video games is similar in most age groups in our data, except the last one but that may be because of outliers and because the age group in our data set is heavily centered around 20-30 years. This plot also shows us that men spend a lot more time playing video games than women, a conclusion we reached before. (Figure 12) To confirm the above implication of age not effect playing time we see the median playing time for each age group. Again, the medians in each age group are close together, so in general we can conclude that age does not affect the time spent playing video games.

More conclusions:

4. People within the age range 15-25 spend the most time playing video games (mostly men) (Refer to Figure 7 and the explanation for the figure above) .

5. Part time employees spend the most time playing video games per week (15 hours on avg) (Refer to figure 10 and the explanation for the figure above).

6. Most people play video games on a PC. The ones who don't are equally likely to play on either an XBOX or a PlayStation. (Refer to Figure 5 and the explanation for the figure above)

FINAL CONCLUSION/MAIN RESULT/MAIN ANSWER:

Hence, looking at all of the above conclusions we can answer our question:

Gender and Employment DO affect the time spent playing video games but Age does NOT.

People of all ages spend a similar amount of time playing video games.

Bringing all of our conclusions together we can see that:

Part-Time Employees, who are 15 to 25 year olds are the most likely to play video games and they spend between 5 to 30 hours gaming every week, probably on a PC.

3. Copy of Survey attached below: