



# Effect Of Personality In Motivation To Gaming And Enjoyment Among College Students

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## ABSTRACT:

**Introduction:** This study explores the complex relationships between educational attainment and gender, examining how these relationships affect the motivational and pleasurable aspects of gaming. Our goal in looking at these variables is to learn more about the subtle factors influencing people's engagement and enjoyment of gaming.

**Aim:** This study aims to investigate how personality traits affect college students' motivation to play games and level of enjoyment from them. It specifically attempts to look into the ways in which specific personality traits and demographic factors affect students' gaming motivation and overall enjoyment.

**Materials and Method:** For this study, a total of 321 data points were first gathered at Plakad District Degree College. 277 data points were kept after outliers were removed, guaranteeing a dataset with greater reliability. The statistical analysis was carried out utilising SPSS version 22. The Mini-IPIP 20-item scale developed by Donnellan et al. (2006) was used for the personality assessment; Demetrovics et al. (2011) developed the motivating online game scale with 27 items; and Davidson (2018) developed the enjoyment scale with 25 items.

**Result:** Most notably, the research reveals a significant gender disparity in motivating game, giving more weight to the underlying causes than just enjoyment. It also explores educational backgrounds, demonstrating that accomplishing educational goals is a stronger incentive for gaming than mere enjoyment. Correlation analysis results indicate negative relationships between relatedness and pleasure with particular personality traits, and somewhat positive relationships between coping strategies and competition. It's interesting to note that while certain personality traits may not have a direct impact on game motivation, the total model—which includes the identified predictors—significantly affects the enjoyment prediction.

**Conclusion:** In conclusion up, the research explores the complex connections among personality qualities, reasons for gaming, and the enjoyment one gets from playing video games online. Through an examination of factors such as social interaction, escapism, and competition, the research offers significant insights into the creation of pleasurable gaming experiences, illuminating the complex interactions present in the digital entertainment space.

Keywords: *Personality, Motivating game, Enjoyment, Gender, Educational background*

## INTRODUCTION

In the world of online gaming, personality, motivation, and enjoyment are intertwined. Whether a person plays to compete, make friends, or experience new things, their motivation to play can be influenced by their particular personality traits. People must comprehend how these elements interact in order to select online games they will enjoy. Players are more likely to have a fulfilling and satisfying experience if they choose a game that fits with their personality and motivation.

Motivations in gaming correlated with personality traits: openness linked to role playing, conscientiousness to escape, extraversion to collaboration, and agreeableness to advancement, while neuroticism and teamwork were not compatible. Second-language learners who played multiplayer games showed better English proficiency linked to these motivations. (Jeng & Teng; 2008; Horowitz, 2019) Found that factors including gaming motivation, environmental factors, the presence of violence, social interaction, and physical activity influence how well-being is affected by gaming (Halbrook et al., 2019). Role-playing game players' motivations for playing online include fantasy and escape (Kircaburun et al., 2018).

Games have strong motivators that encourage participation in unappealing activities like learning theory (Laine & Lindberg, 2020). Conscientiousness was discovered to play a protective role across samples, but agreeableness, extraversion, openness to experience, and neuroticism did not consistently link to online gaming (Akbari et al., 2021). In addition that Possler et al. (2020) Gamers' enjoyment and appreciation of the game go hand in hand, as do gaming-specific gratifications. Committed players were primarily interested in learning the game, gaining leadership and prestige, and connecting with others through the game. They had little interest in using the game as an escape from reality (Fuster et al., 2014).

Johnson and Gardner (2010) Investigating the reliability of the Player experience of need satisfaction, motivations for playing video games and vulnerable populations to adverse effects are all crucial. Significantly higher game performance is predicted by playing in front of a live audience. Only in low-challenge games, where the task's drive-inducing potential is minimized, are social facilitation effects observed. The ensuing effects on gaming enjoyment are less certain (Bowman et al., 2013). Three potential indirect motivations (service & display quality, interactivity, and perceived control), one potential direct hindrance (perceived cost), and presence and enjoyment as potential determinants of their continued intention to play are used (Jang & Park, 2019).

A harmonic synergy that improves our lives is found in the complex dance between enjoyment, motivational games, and personality. Our individual characteristics lend personality to the games we select, and these interactive encounters turn into reflections of our desires and joys. Let's embrace our individuality as we make our way through the vast world of games, drawing joy, inspiration, and inspiration from each step we take and every obstacle we overcome. Because where personality, engaging games, and enjoyment come together, we find a tapestry woven with the strands of our uniqueness, forming a colourful and rich combination that characterises our journey through both the gaming world and life itself.

## **MATERIALS AND METHOD**

### **Sample**

The total of 321 data points were initially gathered at Plakad District Degree College, where the data were collected. 277 data points were kept for analysis after outliers were eliminated, guaranteeing a more reliable dataset for the research. Version 22 of the SPSS programme was used to perform statistical analysis.

An informed consent form outlining the goals of the study, any possible risks or benefits, and the voluntary nature of participation was given to each participant during the data collection period. Furthermore, participants received assurances regarding the stringent confidentiality protocols implemented to safeguard their privacy during the entirety of the research endeavour.

### **STATISTICAL ANALYSIS**

Researchers are given strong tools to examine data relationships and determine significance levels with ease thanks to SPSS 22, which supports a variety of statistical analyses such as t-tests, f-tests, correlation analysis, and regression analysis.

### **Aim**

This study aims to investigate how personality traits affect college students' motivation to play games and level of enjoyment from them. It specifically attempts to look into the ways in which specific personality traits and demographic factors affect students' gaming motivation and overall enjoyment.

### **Tool**

#### **1. Big Five Inventory (Mini-IPIP20)**

The five personality traits (Big-5) on the Mini-IPIP 20 item scale, with a 5-point Likert scale established by Donnellan et al. (2006), are extraversion ( $\alpha = .78$ ), agreeableness ( $\alpha = .67$ ), conscientiousness ( $\alpha = .67$ ), neuroticism ( $\alpha = .76$ ), and intellect/imagination ( $\alpha = .56$ ).

## 2. Motives for Online Gaming

The motivating online game scale, which consists of 27 items and is divided into the categories of social, escape, competition, coping skill, development, fantasy, and recreation by Demetrovics et al. (2011), shows a high degree of internal consistency. All five subscales have Cronbach's alpha values ranging from 0.82 to 0.90 for each factor. Using a scale ranging from almost never/never (1), some of the time (2), half of the time (3), most of the time (4), to almost always/always (5), respondents indicate how frequently they engage.

## 3. Enjoy Scale

The enjoy scale was developed by Davidson (2018) and is based on a seven-point Likert scale with a response anchor at each rating point (1 = Strongly Disagree, 5 = Somewhat Agree, 7 = Strongly Agree). Every factor had a Cronbach's alpha that was higher than or equal to the 0.90 "excellent" threshold; the five subscales ranged from 0.90 to 0.98. The ENJOY scale, comprising five subscales and twenty-five items overall, is a psychometrically validated measure of enjoyment. Pleasure, Relatedness, Competence, Challenge/Improvement, and Engagement are the five subscales.

## RESULTS

*Table 2.1: Gender difference on motivating game and enjoyment*

**Table no. 2.1 gender, mean, standard deviation, and t-test**

| Variable        | Gender | N   | Mean  | SD   | t    |
|-----------------|--------|-----|-------|------|------|
| Motivating Game | Male   | 124 | 76.8  | 17.0 | 3.6* |
|                 | Female | 153 | 67.5  | 23.2 | 3.8* |
| Enjoyment       | Male   | 124 | 113.8 | 17.0 | 1.03 |
|                 | Female | 153 | 116.0 | 17.4 | 1.04 |

\*= 0.05 level

The table shows details regarding the link between two dependent variables enjoyment and motivating game, and the independent variable, Personality, stratified by gender. There are notable variations in the motivating game variable scores between genders, with men exhibiting a mean score of 76.8 and women 67.5 based on personality traits. This is indicated by the t-statistics, which are 3.8 for females and 3.6 for males. On the other hand, for the enjoyment variable, t-value of 1.03 and 1.04, respectively, indicate that there are no significant differences in scores based on personality, with mean scores of 113.8 for males and 116.0 for females. The majority of players, who are probably casual ones, are drawn to the game by word of mouth and nostalgic associations. Playing "Pokémon Go" allows women to satisfy their needs for enjoyment and physical exploration. Conversely, men aim to achieve goals related to social interaction, achievement, coolness, and nostalgia. Males are more worried about the game's privacy implications than females are. When it comes to age, the majority of the examined gratifications show strong connotations for younger players, and as players age, the intensity dramatically decreases (Malik et al., 2020).

*Table 2.2: Educational stream based difference on motivating game and enjoyment*

**Table no. 2.2 Mean, standard deviation and 'F' value**

| Variable        | Educational Stream | N   | Mean   | SD    | F     |
|-----------------|--------------------|-----|--------|-------|-------|
| Motivating game | Science            | 107 | 66.504 | 22.91 | 5.66* |
|                 | Commerce           | 82  | 73.939 | 20.27 |       |
|                 | Arts               | 88  | 75.988 | 18.55 |       |
| Enjoyment       | Science            | 107 | 115.42 | 18.66 | 0.38  |
|                 | Commerce           | 82  | 115.92 | 15.80 |       |
|                 | Arts               | 88  | 113.73 | 16.92 |       |

\*= 0.05 level

The table sheds light on the relationship that exists between the educational stream and the variables enjoyment and motivating Game. The mean scores for the motivating game variable show variances among the three educational streams (Science, Commerce, and Arts). Students in the commerce stream specifically have the highest mean score (73.939), followed by students in the science (66.504) and arts (75.688) streams. A significant difference in the Motivating Game scores between the educational streams is indicated by the associated F-values, which have a no table value of 5.66. As an example, the mean scores for the enjoyment variable are similar in the science (115.42), commerce (115.92), and arts (113.73) streams, and the low F-value of 0.38 indicates that there is no significant difference. These results highlight how educational streams impact the game's motivating elements, but levels of happiness seem to be similar across a range of academic fields. The findings showed that on the learning outcome tests, participants who played the digital game with more cartoon-style, animated, and interactive features outperformed both the lower-complexity digital game group and the conventional paper-and-pencil group. Furthermore, it was discovered that playing these digital games had no effect on learning motivation or attention, which is in contrast to many earlier studies (Chen et al., 2019).

**Table 2.3: Correlation between dimensions of personality traits, motivating game and enjoyment**  
Mean, standard deviation and Correlation for Big-five Personality traits, motivating game and enjoyment

| Variable | 1      | 2      | 3     | 4     | 5      | 6      | 7    | 8     | 9     | 10    | 11    | 12 |
|----------|--------|--------|-------|-------|--------|--------|------|-------|-------|-------|-------|----|
| 1.SOC    | -      | 1      | -     |       |        |        |      |       |       |       |       |    |
| 2.ESC    | -      | .49**  | -     |       |        |        |      |       |       |       |       |    |
| 3.COM    | .74**  | .50**  | -     |       |        |        |      |       |       |       |       |    |
| 4.COP    | .61**  | .66**  | .50** | -     |        |        |      |       |       |       |       |    |
| 5.SKD    | .65**  | .67**  | .68** | .52** | -      |        |      |       |       |       |       |    |
| 6.FAN    | .70**  | .60**  | .59** | .67** | .52**  | -      |      |       |       |       |       |    |
| 7.REC    | .44**  | .58**  | .53** | .49** | .64**  | .40**  | -    |       |       |       |       |    |
| 8.PLE    | -.18** | -.22** | -.12* | -.14* | -.16** | -.23** | -.07 | -     |       |       |       |    |
| 9.REL    | -.01   | .03    | .10   | .00   | .06    | -.00   | .06  | .24** | -     |       |       |    |
| 10.COM   | -.04   | -.03   | -.03  | -.05  | .00    | -.15** | -.00 | .49** | .40** | -     |       |    |
| 11.CHI   | -.00   | .00    | .10   | -.03  | .05    | -.03   | .04  | .44** | .40** | .46** | -     |    |
| 12.ENG   | .05    | .15**  | .11*  | .07   | .07    | .08    | .06  | .22** | .27** | .31** | .36** | -  |

(SOC = Social, ESC = Escape, COM = Competition, COP = Coping, SKD = Skill or development, FAN = Fantasy, REC = Recreation, PLE = Pleasure, REL = Relatedness, COM = Competence, CHI = Challenge or Improvement, ENG = Engagement) \*\* = 0.01, \* = 0.05 level.

The table presents correlation coefficients between personality, dimensions related to the enjoyable and motivating game. Positive correlations between different personality traits (from 40 to 74) suggest possible relationships between them. For instance, the correlations between coping and competition are moderately positive. Conversely, there is evidence of inverse relationships or possible independence between pleasure and relatedness, as they show negative correlations with particular personality traits. In the context of the enjoyable and motivating game, these correlation values offer an analysis of both positive and negative associations among various personality dimensions. (Prensky: 2002; Alsawaier, 2018) suggests integrating gaming motivation into classrooms and attributes sustained interest in learning to gameplay, highlighting strategies used by game developers. The ultimate goal is for students to choose courses based on captivating gameplay in academic settings. This method imagines a time when learners' enjoyment becomes a crucial factor, motivating them to commit time to playing educational games and reaching their learning objectives.

**Table 2.4: Multiple regressions of associations between personality traits and motivating game****Multiple regression of big five personality on motivating game**

| Variable               | B      | 95% CI for B |        | SE B  | $\beta$ | R <sup>2</sup> | $\Delta R^2$ |
|------------------------|--------|--------------|--------|-------|---------|----------------|--------------|
|                        |        | LL           | UL     |       |         |                |              |
| (Constant)             | 80.971 |              |        | 15.73 |         |                |              |
| Eextraversion          | -1.98  | 49.9         | 111.95 | .51   | -.23    |                |              |
| Agreeableness          | .78    | -2.99        | -.98   | .45   | .10     | <b>.08</b>     | <b>.06</b>   |
| Cconscientiousness     | .40    | -.11         | 1.68   | .51   | .04     |                |              |
| Nneuroticism           | .48    | -.59         | 1.41   | .51   | .05     |                |              |
| Iintellect/imagination | -.21   | -.52         | 1.49   | .48   | -.02    |                |              |

The table presents the findings of a multiple regression analysis that examined the relationship between the dependent variable "motivating game" and personality traits (Conscientiousness - C, Agreeableness - A, Neuroticism - N, and Intellect/Openness - I). Key statistical measures for each predictor are listed in the table, including the standardised coefficient ( $\beta$ ), standard error (SE B), 95% confidence interval for B, and unstandardized regression coefficient (B). The reported value of the intercept, or Constant, is 80.971, with a confidence interval ranging from 49.9 to 111.95. Interestingly, the model's statistical significance is not stated clearly, implying that there may not be a statistically significant correlation between motivating game scores and personality traits. The findings show a number of connections between a player's personality and their reasons for gaming. People who play to socialise, for example, are more likely to be open, extraverted, agreeable, and neurotic. On the other hand, people who play to feel accomplished are more likely to be neurotic and extraversion, but less likely to be conscientious and agreeableness (Graham et al., 2013).

**Table 2.5: Multiple regressions of associations between personality traits and enjoyment**  
**Multiple regression of big five personality on enjoyment**

| Variable               | B     | 95% CI for B |        | SE B  | $\beta$ | R <sup>2</sup> | $\Delta R^2$ |
|------------------------|-------|--------------|--------|-------|---------|----------------|--------------|
|                        |       | LL           | UL     |       |         |                |              |
| (Constant)             | 89.07 |              |        | 13.09 |         |                |              |
| Eextraversion          | .97   | 63.29        | 114.84 | .42   | .14     |                |              |
| Aagreeableness         | .19   | .13          | 1.80   | .38   | .03     | <b>.04</b>     | <b>.02*</b>  |
| Cconscientiousness     | -.47  | -.55         | .94    | .42   | -.06    |                |              |
| Nneuroticism           | .70   | -1.31        | .36    | .42   | .09     |                |              |
| Iintellect/imagination | .46   | -.13         | 1.54   | .40   | .06     |                |              |

\*= 0.05 level

Regression analysis is being used to examine how the variables Consciousness, Agreeableness, Neuroticism, Extraversion, and Intellect/Imagination contribute to the explanation of the variation in the reported levels of enjoyment. Together, these predictors account for 4.6% of the variance in enjoyment scores, according to the R Square value of 0.046. This value is adjusted for the number of predictors in the model using the Adjusted R Square (0.028). The F Change statistic's statistical significance ( $p = 0.026$ ) indicates that the model as a whole, including the given predictors, has a substantial effect on enjoyment prediction. The relatively modest R Square values highlight the difficulties in fully explaining the variability in enjoyment using the chosen predictors, even in the face of statistical significance. The findings imply that people are more engaged and pay closer attention when completing gamified studies. The effect of gamification on attention and enjoyment is moderated by certain personality traits, and gamification's positive effects increase an organization's appeal (Triantoro et al., 2020).

## DISCUSSION

The results of the study show a significant difference in how personality determines the variables enjoyment and motivating game. Particularly, substantial personality trait-related differences show up in participants' answers to the motivating game, highlighting the critical role that unique traits play in determining motivational engagement. This difference is especially noticeable between groups that consist of men and women. However, the study finds no evidence of a significant difference based on personality traits for the enjoyment variable. This suggests that variables other than the assessed personality traits might play a more significant role in influencing how enjoyable something is. These results highlight the complex ways in which personality interacts with different aspects of gaming, perhaps enhancing motivation in one area but not in another. Bonanno and Kommers (2005) gender disparities in the amount of time spent playing digital games, the platform of choice, the most popular games among students, male and female, and the genre of choice. The findings are explained from both a neurocognitive and psychosocial angle. Overweight players might have played longer because they enjoyed these games more, which could eventually result in similar or higher energy expenditure than players who are not overweight (Lyons et al., 2011).

Intriguing insights are revealed by examining the independent variable, personality, and the two dependent variables, motivating game and enjoyment, stratified by educational streams, science, commerce, and arts. Students in the commerce stream seem to be more influenced by certain personality traits when it comes to how participants react to the motivating game than other educational streams. This implies that personality traits within particular academic disciplines may have a greater influence on the game's motivating element. On the other hand, the median results for the enjoyment variable are largely consistent across various educational pathways, suggesting that personality traits may play a separate role in determining overall experiences of enjoyment. These results highlight the complex interactions that exist between personality, educational pathways, and particular aspects of gaming experiences. Subramanian et al. (2020) numerous extrinsic and intrinsic motivational factors combined to drive both age groups. The in-game challenge and score system proved to be a source of motivation for the young adults, as per our findings. The perceived benefits to their physical and mental health, as well as the enjoyment of the game, drove older adults to play more and pay less attention to in-game incentives. Also Chans et al. (2021) gamification enhanced student engagement and motivation, enhanced attitudes, encouraged behaviours like turning on the camera during class and attending regularly, and raised grades. This study offers an instrument to measure the outcomes and addresses the need for planning strategies to enhance student motivation in online classes. Those looking to adapt or apply it in other disciplines may find it useful.

The study of the relationship between personality traits and the enjoyable and motivating game reveals complex relationships within the gaming experience. The moderately positive associations between coping and competition serve as an example of positive correlations that point to possible synergies between specific personalities traits in the formation of motivational engagement. On the other hand, negative correlations between relatedness and pleasure and certain personality dimensions suggest inverse relationships or possible independence, meaning that the pleasure from gaming and the sense of relatedness might not be highly correlated with these enjoyment and specific traits. The effect of game outcome was mediated in the following ways by the motivational climate. Players feel that the atmosphere is more ego-related on game days when they have won, which lowers enjoyment and raises perceived competence. Players see the environment as more task-related on game days when the team is losing, which boosts enjoyment, perceived competence, and intention to exercise (Morales-Belando et al., 2023).

The model demonstrates overall significance and incorporates intelligence/imagination, conscientiousness, neuroticism, extraversion, and agreeableness as predictors. It also shows a statistically significant impact on predicting motivating game scores; however, the modest explanatory power of these personality traits suggests that other factors that have not yet been investigated may play a substantial role in influencing motivating game outcomes. Research can partially explain how personality traits and present motivation interact, as well as how this affects immersion in real-time social science simulation games explored by (Preuß, 2020).

Personality traits affect the dependent variable "enjoyment" yields some interesting results. The modest proportion of explained variance indicates that the chosen personality traits contribute moderately to enjoyment prediction, even though the overall model is statistically significant. To be more precise, conscientiousness shows a negative relationship with enjoyment, whereas extraversion shows a positive association. Though with smaller effect sizes, other traits (Neuroticism, Intellect, openness, and Agreeableness) also exhibit positive associations. The complexity of the relationship between personality traits and the subjective experience and game design factor also predict enjoyment. In addition, there was a

positive correlation found between Player Enjoyment and certain Game Design Elements, as well as Personality Traits (Oliveira et al., 2022).

## CONCLUSION

In summary, this study has explored the complex relationships between people's personalities, reasons for engaging in online gaming, and the pleasure these experiences bring. We discovered a number of elements that influence the gaming experience by looking at aspects like social interaction, escapism, competition, coping skills, personal growth, fantasy, and recreation. The study also took into account the impact of unique personality traits on gaming preferences and behaviours. In particular, the enjoyment dimension was examined, with particular attention paid to components like Pleasure, Relatedness, Competence, Challenge/Improvement, and Engagement. These thorough results provide important new information for creating enjoyable and rewarding gaming experiences by deepening our understanding of the intricate interactions between personality, motivations, and the particular aspects of enjoyment in the ever-changing digital entertainment landscape.

## Implication

These insights enable developers of video games to produce more engaging and entertaining gaming environments that satisfy a range of motivations. Teachers can take advantage of gaming's positive aspects to foster social and skill development in their students. Professionals in mental health may use customised gaming interventions, taking into account the unique influences of each patient's personality. All things considered, the study offers stakeholders useful advice to improve player happiness and wellbeing in the ever-changing world of digital entertainment.

## Limitation

This study has limitations even though it provides insightful information. Since the results are based on self-reported data, response bias may be present. Furthermore, the particular demographic traits of the study participants may limit the results' generalizability. The research design's cross-sectional nature makes it difficult to determine a cause and effect relationship or track changes over time. Prospective research endeavours that integrate heterogeneous participant cohorts, extended time frames, and supplementary qualitative methodologies may furnish a more all-encompassing comprehension of the intricate relationship among personality, gaming motivations, and enjoyment measuring factors.

## CONFLICT OF INTEREST

I declare that I have no conflicts of interest with this study. I don't have any personal or financial ties that might bias the results or interpretations this study presents. The purpose of this statement is to guarantee the integrity and openness of the research process.

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