

Pub-G: Unravelling the traits of n-Power, Illusory Superiority, and Schadenfreude through Gaming

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This study aimed to reveal the traits of n-power, illusory superiority, and Schadenfreude through Pub-G and also check the relationship between these traits. Simultaneously, the predictive role of Time spent on Pub-G on these traits was explored. A total of 154 Pub-G users (males 79.2%, 25 females 15.7%) participated in this study and were asked to fill the questionnaire through an online mode via emails and WhatsApp. The questionnaire included demographic information and traits-related statements of Pub-G users. The statements were framed for the dimensions- "traits of n-power", "illusory superiority", and "Schadenfreude". The results exhibited a significantly positive correlation in all the three combinations i.e, a good correlation between n-Power and Illusory Superiority, a Moderate Correlation between Illusory Superiority and Schadenfreude, and a low correlation between n-Power and Schadenfreude. We also found that time spent on PUB-G for more than 4hrs significantly predicted Illusory Superiority, n-Power, and Schadenfreude but the overall variance explained in Schadenfreude by Time intervals was found to be insignificant. However, time intervals below 4hrs showed mixed results on these three variables. The current study is centered on the role of varied time intervals in playing Pub -G on different Socio-Cognitive traits (Illusory Superiority, n-Power, and Schadenfreude) and also how these traits are correlated to each other. We found a substantial role of time in revealing the traits but it's highly suggested to look for other determinants like Locus of Control, Time Paradox, and many other social and cognitive factors. Sample size and sample proportion (Male/ Female) should also be taken care of.

Keywords: n-Power, Illusory Superiority, Schadenfreude, Pub-G

The first Player unknown's battlegrounds (Pub-G) was launched by Pub-G Corporation in December 2017 (D'Souza, 2019). In pub-g, a person can play a solo game and can collaborate with other online players to fight against enemies in the game and accomplish the mission. The number of players has increased significantly, as a hundred players can play at a time. On one side, the Pub-G game has become a habit of entertainment and on the other side, it leads the excessive disturbances in daily life activities. In Pub-G players have a voice interaction with others

while playing the game. They can make Pub-G friends all over the globe and even involve in real or virtual transactions of assets. One of the main attractive characteristics among pub-g players is the quest for goals and achievements. As Pub-G players start to play, their character promotes by winning experience points and ascend to the higher levels of the game while accumulating valuable weapons and become prosperous and more powerful. In this online social arena, players who play well receive all the praises and recognition from other Pub-G players

and also gain power and status. Pub-G players often experience a state of 'n-Power' and desire to impress, control, and exert influence on others, and eventually receive acknowledgment for the same (McClelland, 1962; Brunstein, & Schultheiss, 2010); "illusion of superiority" in which gamers show cognitive bias and estimate their abilities as much higher than they actually are (Dunning & Kruger, 1999). Schadenfreude involves seeking pleasure from seeing the misfortunes of someone else's misfortune (Leach et al., 2003). Takahashi et al. (2008) conducted an fMRI driven Neurocognitive study to see the neural correlates of Schadenfreude and they found a powerful activation was induced in the striatum when an unfortunate event occurred to the envied persons. At the present moment, researchers didn't find any study on how pub-g plays a role in unfolding the psychological characteristics of players. Therefore, there is a need to understand the psychological motives or drives that explain the behavior of the Pub-G population. Thus, the purpose of this study was to explore three psychological characteristics of Pub-g players i.e., n-power, illusionary superiority, and schadenfreude Allahverdipour et al., (2010) found that on average gamers spent 6.3 hours per week playing video games. The habit of excessive entertainment in gaming and by spending hours every day playing the game has become the game addiction of youngsters (Whang & Chang, 2004). Baumann et al., (2016) proposed the satisfaction of a player's in-game choice. Researchers assumed that one player's need for competence (i.e., who wants to finish a level one), might not satisfy another player (who wants to finish the level with three stars) to gain competence and power. The tendency of Pub-G players may possess different power motives or arousing features to enjoy the playing. However, this obsession with spending hours playing games is

characterized as harmful exposure to aggressive nature, attitude, and behavior. Singh (2019) has found that an addictive indulgence in multiplayer online gaming is commonly seen in adolescence and early adulthood stages i.e, between the age of 12-25 years of youth. Boys reported more gaming abuse as compared to girls. The results have also shown that the online style of mass shootings is related to the addiction of violent games among adolescents and young adults. The study found that online game addiction is positively correlated with aggression and personality traits of players (Kim et al., 2008). American Psychiatric Association (2013) reported that people with narcissistic personality traits have a heightened sense of self, and experience fantasies of success, and power, and these people desire an unnecessary appreciation and recognition. Studies show that online game addiction is positively related to anti-social behavior (Van Schie & Wiegman, 1997); aggressive thoughts, affect, and behavior (Anderson et al., 2010); hostile expectation bias (Anderson & Ford, 1986); self-consciousness (Whang et al., 2003); aggression and narcissistic personality traits (Kim et al., 2008); neuroticism (Müller, et al., 2014; Hussain et al., 2012; Karaca et al., 2020; Liao et al., 2020).

Objectives

1. Establishing the Scale for the n-Power, Illusory Superiority, and Schadenfreude dimensions.
2. To explore the relationship between traits of n-power, illusionary superiority, and schadenfreude among Pub-G players
3. To find the predictive role of Time spent on Pub-G on the n-power, illusionary superiority, and schadenfreude traits.

Hypotheses

1. There will be a significant relationship between n-power, illusory superiority, and schadenfreude traits among Pub-G players.
2. Excessive time spent on playing Pub-G will positively predict the n-power, illusory superiority, and schadenfreude traits of Pub-G players.

Method

Sample

The purposive, convenience, and snowball sampling techniques were used to collect the data. The data was collected from 164 participants while we included only 154 participants because of the inclusion and exclusion criteria that we set.

Inclusion Criteria

1. Participants between the ages of 15-30 years were included in the study.
2. Only the Pub-G playing Participants were included in the study.

Exclusion Criteria

1. Participants who were below 15 years of old and above 30 years old were excluded.
2. Participants who did not play the Pub-G game were excluded.
3. Participants who play any other online games were not included.

Measures

We couldn't find any relevant questionnaire/Scale related to our research interest and we end up making one of our own. Following the data collection, we checked the internal consistency of the whole scale and its dimensions too. The scale consists of 20 items Lickert scale which range from Strongly Disagree (1) to Strongly Agree (5)

Table 1. Shows Cronbach-Alpha of the whole scale and its dimensions.

No. of Items	Scale/Dimension	Cronbach-Alpha
20	Socio-Cognitive Scale	.867
7(1,2,3,4,5,6,7)	Illusory Superiority	.833
8(8,9,10,11,12,1,3,14,15)	Need for Power	.771
5(16,17,18,19,20)	Schadenfreude	.653

This Scale was developed during the study and the authors checked the internal consistency of items in each dimension and the overall scale.

Table 2. Shows No. of items in each dimension of the scale developed, Median value in each dimension and frequency of people who fall above or below the Median value.

	Illusory Superiority	n-Power	Schadenfreude
No. of Items	7	8	5
Median value	22	30	20
Frequency of people above Median Value	89	82	84
Frequency of people below Median Value	65	72	70

Consent Form

We asked for their consent before filling the questionnaire. They could even withdraw from the survey if they felt disinterested at any point in time during response. We assured them of the confidentiality of their data and only then started collecting the data. Almost all the data was collected through the online mode.

Procedure

Firstly, researchers made a google form and shared it on WhatsApp to the participants who were playing the Pub-G game. And they were requested to share with their friends

who were playing the Pub-G game. In the consent form, we clarified the research objectives to the participants. They were given the freedom to voluntarily participate in the study and have all the rights to withdraw at any moment they wanted to. As soon as they gave consent for their self-report questionnaire which has its own instruction on the top of each page. Lastly, after participation in the study, they were asked to give details about demographics and fill the submitting the form, we performed further analysis of the obtained data. Results and Interpretation

As a result, the descriptive statistics of the demographic variables are presented in Table 3. The data was coded and analyzed through the SPSS (Statistical package for social science) Version 23.

Table 3: Frequency and percentage of demographic variables (N =154)

Variables		Frequency	%
Gender	Male	129	83.8
	Female	25	16.2
Age	15-20 years	62	40.3
	21-25 years	74	48.1
State	UT-JK	107	69.5
	Uttar Pradesh	10	6.5
	Delhi	37	24.0
Qualification	Secondary students	61	39.6
	Bachelors	69	44.8
	Post-Graduate	24	15.6

Table 4: Relationship between n-power, illusionary superiority, and schadenfreude

	n-power	Illusionary Superiority	Schadenfreude
n-power	1	.595**	.424**
Illusionary superiority		1	.273**
Schadenfreude			1

Note**. Correlation is significant at the 0.01 level.

Finally, we observed a good positive correlation between n-Power and Illusory Superiority, a moderate correlation between n-Power and Schadenfreude, and a weak correlation between Illusory Superiority and Schadenfreude among PUB-G players. n-Power and Illusory Superiority ($r = .595, p < 0.01$), n-Power and Schadenfreude ($r = .424, p < 0.01$), and Illusory Superiority and Schadenfreude ($r = .273, p < 0.01$), as displayed in Table 4zTable 5: Regression model for predicting n-power, illusionary superiority, and schadenfreude with time spent on playing Pug-G game.

R	R ²	Adj. R ²	p	F	p	Durbin Watson
.361	.310	.106	.000	5.468	.000	1.820
.316	.100	.075	.004	4.051	.004	1.463
.195	.038	.012	.224	.1438	.224	1.986

Predictors: (constant), Time spent less than 1hr, 1 to 2 hours, 2 to 3hrs, 3 to 4hrs

Dependent variables: n-Power, Illusionary Superiority, Schadenfreude.

Table 6: Shows the beta coefficient of time intervals in predicting the n-Power, Illusory Superiority, and Schadenfreude respectively.

	n-power		Illusionary superiority		Schadenfreude	
	beta	p	beta	p	beta	p
1 to 2 hours	-.003	.976	-.095	.340	.024	.816
2 to 3 hours	.108	.247	-.048	.616	.135	.171
3 to 4 hours	.142	.112	.086	.341	.047	.613
More than 4 hours	.360	.000	.260	.004	.188	.044

Discussion:

The aim of our study was to explore the relationship between Illusory Superiority, the

need for power, and schadenfreude among the Pub-G playing participants. Concomitantly, we were interested in exploring the role of time spent on playing Pub-G in predicting these psychological traits.

While exploring the correlation between psychological traits we found a sound correlation between n-power and Illusory superiority. Taylor and Brown (1994) opined that people hold inflated positive illusions in three domains and one of the important domains was that they believe that they have a complete hold on environmental issues than actually, it is. This study is consistent with our results manifesting the positive association between Illusory Superiority and n-Power. Basically, Pub-G gamers are so absorbed in this game that they shun the boundary between their physical body and their avatar who's playing the game.

Ergo, it's as if they are playing the game on their own, unlike their avatar. In compliance with McLelland's view that people have a need for power, so these gamers reflect this motivational trait through the game. Eventually, with more experience, they develop feelings of grandiosity and an inflated sense of their gaming skills.

Similarly, a good correlation was found between the need for power and Schadenfreude. From this, we can infer those gamers had a sense of control or command and at the same time they would derive pleasure from opponents' loss or harm. Since this game is like every participant or team is in an arms race to outsmart everyone else. These gamers want to overpower everyone else and for that, they even derive pleasure when their opponent is knocked or receives serious injuries. This argument derives support from Muzaffersherif's Realistic conflict theory. Pub-G is a high-intensity game that provides a very emulous environment for gamers and they end up

developing harsh feelings towards opponents and even celebrating their damage or death.

Concurrently, a significant positive correlation was found between Illusory Superiority and Schadenfreude but the correlation is not strong. Ergo, we can say gamers have an inflated sense of their personal abilities and in unison, they may derive gratifications out of their opponents' misfortunes but these traits will be weakly related.

Besides in table 6, we explored the predictive nature of time spent on the game every day. Since people varied in routine average gameplay so, we created time zones to predict the psychological traits more accurately. To meet this purpose, we created a baseline with which we compared the specific time interval and eventually predicted the respective psychological traits. We actually created time intervals (Less than 1hr, 1 to 2hrs, 2 to 3hrs, 3 to 4hrs, and more than 4hr), where less than 1hr was set as a baseline with which we compared the rest of the class intervals and we did this for all the three psychological traits i.e, need for power, superiority illusion, and schadenfreude.

From Tables 5 and 6, we can see the time intervals of 2 to 3hrs and more than 4hrs in comparison to baseline have significantly predicted the need for power. In similitude, we found that only more than 4hrs of the time spent on Pub-G in comparison to the baseline could predict the Illusory superiority, while the rest of the time intervals showed insignificant explanatory powers. Last but not the least, only the time interval, more than 4hrs from the whole model schadenfreude could significantly predict the experience of Studies have shown that obsessive passion (excessive reliance on gaming) is associated with poorer interpersonal relationships (Vallerand et al., 2008), and alarming aggression towards other teams and their fans (Bureau, Vallerand, Ntoumanis, &

Lafreniere, 2012). The study is in compliance with our results which shows the experience of Schadenfreude on the highest time interval only i.e, more than 4hrs.

Ergo, the overall model explained significant variance in the case of Illusory Superiority, and n-Power respectively. while the model couldn't explain a significant amount of variance in Schadenfreude.

Future Direction

The study focused on revealing the psychological traits (Illusory Superiority, n-Power, and Schadenfreude) through Player Unknown's Battlegrounds-Gaming (PUB-G). These online games decrypt different psychological enigmas of people. We can develop psychological awareness programs for the people and aware them of the pros and cons of gaming behaviors and the addiction component associated with these games. In the current study, there is a huge disproportion in gender who play PUB-G, a significantly higher proportion of Males in comparison to females play these online games. Ergo, the current work can be extended to explore the Social, Psychological, and Cognitive reasons behind this disparity. Moreover, we couldn't collect ample data because the Indian government has banned this game. Even when this game has been blocked, people have switched to other online games now and some are still playing the PUB-G in different ways. We have also formulated one scale for this purpose which can also be tried on other online games.

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