



A STUDY ON THE EFFECTIVENESS OF ONLINE GAMES IN SKILL DEVELOPMENT

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Abstract

Online games are played through partial or full internet access. Now most of people are engaged in online world particularly for gaming purpose. As they are spending huge time playing such games there is a chance of getting some skills from that entertainment. The online gaming platforms let them to learn lot of things from that apart from entertaining them. Game based learning is must to make active participation in learning and to get productive results in education. Gamification is the combination of fun and learning. These strategies are adopted to make the learning environment filled with fun. It leads to increase the participations of learners. Participation will create changes in the learning style and an eagerness to learn something new. Apart from the traditional classroom setups the inclusion of some amusement things in education will lead to development of education level. So, this study is focusing on effective focuses on the effectiveness of online games in skill development, learning, and skill development

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1. Introduction

In this digital era everyone is learning something new from whatever they are experiencing. Likewise online games are also being a part of new learning. Now the online games are not only contributing to fun and entertainment apart from that, it is focusing on its contents, commends and reviews for their further developments. To sustain in this competitive market it is absolutely necessary to always better than others. Many people are playing these online games, so it is necessary to analyse about what they are getting from that. That's why this study is concentrating on one of the major benefits of online games, which skill development.

Objectives

1. To understand the effects of online games in skill development.
2. To analyze the effect of online gaming frequency on skill development.
3. To examine the highly benefited skill category by playing online games.

Significance of the study

People in various fields are equipping themselves in their core areas to update their knowledge. For that they are even ready to spend some amount of money. In today's life, skill development is one of the major necessities to strive in this competitive world. At the same time people have to relax themselves with some recreational activities, Here that's why this study focusing on skill development from one of the recreational activities online games.

Review of literature

(Rachel Kowert, Julian A. Oldmeadow, 2013) This study was conducted to identify the relationship between the involvement in online video games and social skills. For that six social skill inventories are considered such as, emotional sensitivity, emotional expressivity, emotional control, social sensitivity, social expressivity and social control. It is revealed that there is a positive relationship between the social skill subscales and involvement in online video games and the players who are highly involved in online games are more effective in emotional expressivity and control. (Tzu-Ling Huang, Chieh-Ni Wu, Ming-Hsin Chang, Gen-Yih Liao, Ching-I Teng, 2022) This study was conducted to find the problems faced by the people with insufficient knowledge and found that current gaming skills are less influential than the future gaming skills. The term expectancy means the result in the coming future. (Tom

Data analysis

Stafford, Sam Devlin, Rafet Sifa, Anders Drachen, 2017) This study reveals that players have a tendency to explore the online games for skill acquisition. And it found that skill acquisitions is not only based on curiosity of the player and the richness in acquiring skills, varies based on the time spends to practice. (Sarah Masyitha Elysia, Candra Hadi Asmara, 2002) The main aim of this study is to analyze the development of English vocabulary because of playing online games and found that the vocabulary skills of the students are getting increased by playing the online games, because of learning without any fear from the learning environment. The students are not feeling bored when they are learning with fun.

2. Research methodology

This study used both primary data and secondary data. The primary data is collected by structured close ended questionnaire with the help of Google form. Convenient sampling one of the non probability sampling techniques is used to collect the data. The secondary data is collected from the previous published research papers and other articles. But this study is heavily dependent on primary data.

Tools used

- ✓ The collected data is analyzed using the **SPSS 20** software.
- ✓ To check the internal consistency reliability of the skills developed from online games **Cronbach's alpha** is used.
- ✓ **Chi-square analysis** is used to analyze the association level between the variables.
- ✓ **Karl Pearson Correlation coefficient** is used to analyze the relationship between the variables.
- ✓ **Friedman test** is used to rank the various skills.

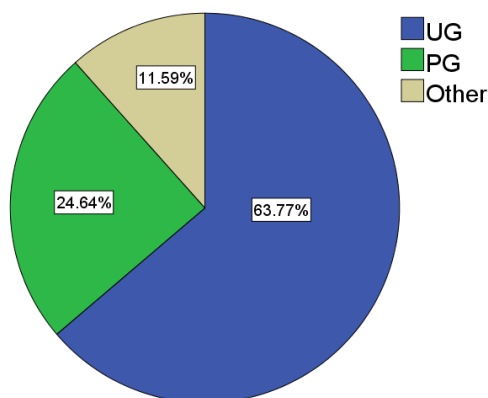
Hypothesis of this study

- H₀: There is no significance difference among the mean rank towards skills from online games.
- H₀: The level of skill development of online game players is not equally distributed.
- H₀: There is no association between gender and the level of skill development of online game players.
- H₀: There is no association between the frequency of playing online games and the level of skill development
- H₀: There is no relationship between the level of skill development from online games.

Table 1 Demographic profile of respondents

Demographic Profile	Frequency	Percentage
Age		
15-20	29	42.0
21-25	25	36.2
26-30	10	14.5
31-35	3	4.3
More than 35	2	2.9
Gender		
Male	43	62.3
Female	26	37.7
Education		
UG	44	63.8
PG	17	24.6
Professional courses	0	0
Others	8	11.6

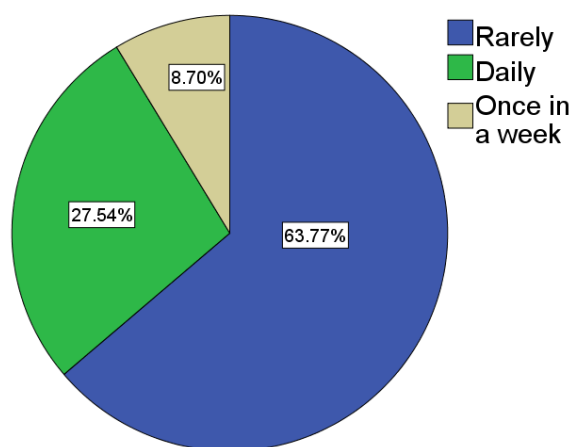
Diagrammatic representation Education



Interpretation From table 1 it is revealed that majority of the respondents (42.0%) belongs to 15-20 age group. 62.3% of respondents are male. In

education section 63.8% of respondents are UG graduates.

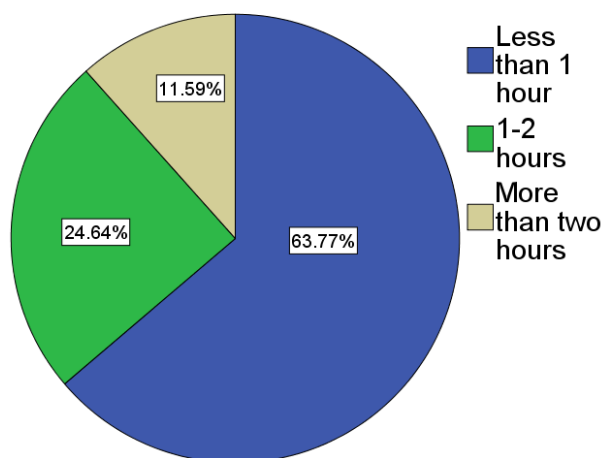
Frequency of playing online games



Interpretation From the above diagram it is shown that 63.7% of respondents are playing online games once in a week, 27.54% of

respondents are the daily players and 8.70% of players are playing rarely.

Time spend at each time



Interpretation From the above diagram it is clear that majority of people (63.77%) are playing online games less than 1 hour, 24.64% of

respondents are comes under 1-2 hours category and least percentage (11.59%) of people are playing more than two hours.

Cronbach’s alpha to test the internal consistency reliability

Table 2 Cronbach’s alpha

List of skill	Cronbach’s alpha value	Number of items in a set
Linguistic skill	0.898	5
Emotional stability	0.829	5
Mental skill	0.835	5
Computing skill	0.892	5
Leadership skill	0.893	5

Interpretation From the table 2, it is clear that the Cronbach’s alpha test is used to test the reliability and internal consistency of set of items in the each sub groups. Thus each groups consist of 5 subsets. As the cronbach’s alpha value relies between 0.8 to 0.9, the internal consistency reliability of the used set of items is good.

Hypothesis testing

Chi-square test for goodness of fit of equality of level of skill development of online games players.

H0: Level of skill development of online game players is not equally distributed.

Table 3 Chi square test

Level of skill development	Frequency	Percent	Chi-square value	P value
Low	17	24.6	9.391	0.009
Moderate	35	50.7		
High	17	24.6		
Total	69	100.0		

Interpretation Since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance. Hence, concluded that Level of skill development is equally distributed. Based on percentage, majority of employees belongs to Moderate level (50.7).

Chi-square analysis to test association between gender and level of skill development.

H0: There is no association between gender and level of skill development of online game players.

Table 4 Chi square test

Gender	Level of skill development	Total	Chi-square	P value

	Low	Moderate	High		value	
Male	13 (30.2) [76.5]	20 (46.5) [57.1]	10 (23.3) [58.8]	43 (100.0) [62.3]	1.938	0.380
Female	4 (15.4) [23.5]	15 (57.7) [42.9]	7 (26.9) [41.2]	26 (100.0) [37.7]		
Total	17 (24.6) [100.0]	35 (50.7) [100.0]	17 (24.6) [100.0]	69 (100.0) [100.0]		

The value within () refers the row percentage.
The value within [] refers the column percentage.

Interpretation Since the P value is more than 0.01, the null hypothesis is accepted at 1% level of significance. Hence, concluded that there is no association between Gender and Level of skill development. Based on the row percentage, 30.2% of Male have low level of skill development, 23.3% of male have high level of skill development. In female 15.4% have low level of skill development and 26.9% have high level of

skill development. Majority of female online game players have high level of skill development from online games.

Chi-square analysis to test the association between the frequency of online games and the level of skill development.

H0= There is no association between the frequency of online games and level of skill development.

H1= There is an association between the frequency of online games and level of skill development.

Table 4 Chi square test

Frequency	Level of skill development			Total	Chi-square value	P value
	Low	Moderate	High			
Rarely	6 (13.6%) [35.3%]	26 (59.1%) [74.3%]	12 (27.3%) [70.6%]	44 (100.0%) [63.8%]	8.689	0.69
Daily	9 (47.4%) [52.9%]	6 (31.6%) [17.1%]	4 (21.1%) [23.5%]	19 (100.0%) [27.5%]		
Once in a week	2 (33.3%) [11.8%]	3 (50.0%) [8.6%]	1 (16.7%) [5.9%]	6 (100.0%) [8.7%]		
Total	17 (24.6%) [100.0%]	35 (50.7%) [100.0%]	17 (24.6%) [100.0%]	69 (100.0%) [100.0%]		

The value within () refers the row percentage.
The value within [] refers the column percentage

Interpretation Since the P value is more than 0.01, the null hypothesis is accepted at 1% level of significance. Hence, concluded that there is no

association between frequency of playing online games and level of skill development. Based on the row percentage in rarely playing category, 13.6% of players are having low level of skill development and 27.3% of players are having high level of skill development. In daily players category, 47.4% of players are having low level and 21.1% of players are having high level of skill development. And at last, In weekly once playing

category 33.3% of players are having low level and 16.7% of players are having high level in skill development.

Friedman test for significant difference among the mean ranks towards effectiveness of online games in skill development.

H0: There is no significance difference among the mean rank towards skills from online games.

Table 5 Friedman test

Skills developed from online games	Mean Rank	Rank	Chi-square value	P value
Linguistic knowledge	3.70	5	29.106	>0.001 **
Emotional Stability	3.27	4		
Mental skill	2.64	2		
Computing skill	2.62	1		
Leadership skill	2.78	3		

Note: ** Denotes significant at 1% level

Interpretation Since P value is less than 0.01 the null hypothesis is rejected at 1% level of significance. Hence, concluded that there is a significant difference among mean ranks towards the **skills developed from online games**. Based on mean rank, linguistic skill (3.70) is highly beneficial skill category from online games, followed by emotional stability (3.27), leadership

skill (2.78), mental skill (2.64), and the least ranked skill is computing skill (2.62).

Karl Pearson Correlation Coefficient between the levels of skill of development.

H0= There is no relationship between the levels of skill development.

Table 6 Karl Pearson Correlation Coefficient

Skills developed from online games	Linguistic knowledge	Emotional Stability	Mental skill	Computing skill	Leadership skill
Linguistic knowledge	1				
Emotional Stability	.677**	1			
Mental skill	.375**	.397**	1		
Computing skill	.641**	.662**	.326**	1	
Leadership skill	.650**	.546**	.373**	.606**	1

** Correlation is significant at the 0.01 level (2-tailed).

Interpretation In the above table all the items, such as linguistic knowledge, emotional stability, mental skill, computing skill and leadership skill are having a **positive relationship** with the each other items at 1% level of significance. There is a positive relationship between linguistic knowledge with emotional stability, mental skill, computing skill and leadership skill at 45.8%, 14.0%, 41.0% and 42.2%. Emotional stability is having a positive relationship with mental skill, computing skill and

leadership skill at 15.7%, 43.8% and 29.8%. Mental skill is having a positive relationship with computing skill at 10.6% and leadership skill at 13.9%. And at last computing skill is having a positive relationship with leadership skill at 36.7%.

Limitations of the study

- The time is major constrain in this study so this research is not covered all the areas.
- The data is also collected from the respondents who are convenient at the time.

3. Conclusion

Many of the internet users are now aware of online games at least for fun purpose, even though they can able to learn something novel from that. Even an illiterate person can able to understand the purpose of using a particular command without knowing its literal meaning because of repeating the same actions for the specified use. Directly or indirectly the online games are contributing to the skill development. The players are getting dual benefits when they playing. The mental ability of player is actively performing to win the games leading the way to increase the concentration power. So it is important to include online game based learning in higher education not only to modernize it but also to make the learning part more interesting and enthusiastic.

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