

INTEGRATING GAMIFICATION TO ENHANCE CREATIVE THINKING AND EMOTIONAL RESILIENCE AMONG PROSPECTIVE TEACHERS

Abstract

Gamification is designing the components of content and incorporating them into the components of the game. Gamification encourages learners to learn the concepts in a new way. Creative thinking is an essential component needed for learning. Emotional resilience helps learners to overcome stressful environments. Prospective teachers are the budding teachers who are in their Pre-service training. The study explores the integration of gamification to enhance creative thinking and emotional resilience among prospective teachers. A self-made questionnaire with 30 questions, with a 5-point scale was developed. A sample of 100 prospective teachers from Alagappa B.Ed College was chosen. The data were collected and analyzed using the FOSS tool Janovi.

Keywords: Gamification, Creative thinking, Emotional Resilience, Prospective teachers.

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I. INTRODUCTION

Gamification is the process of integrating the components of a game in a non-game environment. Meanwhile gamification in education is incorporating the elements of learning with the components of gaming. If these are properly matched, then the learners would have an active learning environment. Gamification also provides the learner to explore the opportunities of learning in a gamified environment. The gamification strategy provides the learner to accept the difficulties, challenges in learning with leader boards, avatars, score boards etc, which would develop their resilience and tendency to accept success and failure. NEP 2020, envisions a shift away from rote learning to innovative pedagogies such as Gamification, Toy based pedagogy etc.. So knowledge about gamification is necessary for a prospective teacher as the knowledge will help the prospective teachers to well prepare, to adapt to innovations and teaching methodologies during their teaching period. This paper finds the integration of gamification in enhancing creative thinking and emotional resilience among prospective teachers.

II. NEED AND SIGNIFICANCE OF THE STUDY

Gamification is the new strategy that enables the learner to learn new things. Gamification helps the learner to be more accountable and adaptable to the learning environment. NEP2020 suggests gamification would be one of the alternatives to rote learning, it also suggests developing gamification strategies to teach rich culture, heritage and to design the future in a new way. Creative thinking helps the learner to be unique, thinks out of the box, and seeks solution to problems. Creative thinkers will be able to sort out a specific solution, with limited sources. Creative thinkers mostly think of simultaneous solutions and seek varying opportunities. This would help them to develop perseverance and accepting hard situations. Teaching profession is one of the most stressful professions. (1). Researches has proved that the teaching profession seems to be more stressful and many quit the teaching profession. This proves the need for emotional resilience among prospective teachers. Today's generation is more tangible and wants to learn more, their quench of thirst is more appreciable. The traditional teaching methods have to be constructed as per the learners interest, tendency to learn thing which also should be adaptive with innovation and technology. Gamification seems to be filling the gap and also enhances creative thinking and emotional resilience.

III. METHODOLOGY

1. Objectives:

- To find out the significant difference, if any, between male and female prospective teachers in their creative thinking.
- To find out the significant difference, if any, between male and female prospective teachers in their emotional resilience.
- To find out the significant difference, if any, between rural and urban prospective teachers in their Creative thinking.
- To find out the significant difference, if any, between rural and urban prospective teachers in their emotional resilience.

- To find out the significant correlation, if any, between creative thinking and emotional resilience in integrating gamification.

2. Hypotheses:

- There is no significant difference between male and female prospective teachers in their creative thinking.
- There is no significant difference between male and female prospective teachers in their emotional resilience.
- There is no significant difference between rural and urban prospective teachers in their Creative thinking.
- There is no significant difference between rural and urban prospective teachers in their emotional resilience.
- There is no significant association between creative thinking and emotional resilience in integrating gamification.

3. Methodology: The investigator in her study adopts the survey method of educational research. The population of the study is identified as Prospective teachers. Among the population, 100 prospective teachers were selected from Alagappa B.Ed College, Karaikudi. Random Sampling Technique was adopted by the investigator. In the present study, the investigator with the help of research supervisor .The ER Scale has minimum score of 15 and a maximum score of 75, with 5 point scale and CT Scale has a minimum score of 15 to a maximum score of 75 with a five point scale.

- Emotional Resilience Scale developed by researcher and the research supervisor. (ER Scale)
- Creative thinking scale developed by researcher and the research supervisor. (CT Scale)
- The tool was shown to subject experts and their approval has been obtained before administration. To establish the reliability, test-retest method was followed. The reliability score was found to be 0.74. Thus the tool is taken as reliable.

IV. RESULTS AND DISCUSSIONS

1. Hypothesis-1

- There is no significant difference between male and female prospective teachers in their creative thinking.

Table 1: Table Showing the Significant Difference between Male and Female Prospective Teachers in their Creative Thinking

Gender	N	Mean	U-Value	p value	Rank-Bi serial correlation value	Result
Male	53	64.07	1270.500	0.865	0.020	Not Significant
Female	47	63.74				

Mann-Whitney test was chosen to interpret the values since the collected data does not show normality. Since the biserial rank correlation value is very low .020 and p value is greater than the 5% level of significance. This shows there is no significant difference between male and female prospective teachers in creative thinking.

2. Hypothesis-2

- There is no significant difference between male and female prospective teachers in their emotional resilience.

Table 2: Table Showing the Significant Difference between Male and Female Prospective Teachers in their Emotional Resilience

Gender	N	Mean	U-Value	p value	Rank-Bi serial correlation value	Result
Male	53	61.0	1241.500	0.981	0.003	Not Significant
Female	47	62.1				

It's understood from the above the biserial rank correlation value is very low .003 and p value is greater than the 5% level of significance. This shows there is no significant difference between male and female prospective teachers in emotional resilience.

3. Hypothesis-3

- There is no significant difference between rural and urban prospective teachers in their creative thinking.

Table 3: Table Showing the Significant Difference between Rural and Urban Prospective Teachers in their Creative Thinking

Locality	N	Mean	U-Value	p value	Rank-Bi serial correlation value	Result
Rural	40	64.075	1175.00	0.862	0.0208	Not Significant
Urban	60	63.745				

It's inferred from the above table that the bi serial rank correlation value is very low .020 and p value is greater than the 5% level of significance. This shows there is no significant difference between rural and urban prospective teachers in creative thinking.

4. Hypothesis-4

- There is no significant difference between rural and urban prospective teachers in their emotional resilience.

Table 4: Table Showing the Significant Difference between Rural and Urban Prospective Teachers in their Emotional Resilience.

Locality	N	Mean	U-Value	p value	Rank-Bi serial correlation value	Result
Rural	40	62.1	1168.005	0.824	0.002	Not Significant
Urban	60	61.2				

It's inferred from the above table that the biserial rank correlation value is very low .002 and p value is greater than the 5% level of significance. This shows there is no significant difference between rural and urban prospective teachers in emotional resilience.

5. Hypothesis-5

- There is no significant association between creative thinking and emotional resilience in integrating gamification.

Table 5: Table Showing Significant Association between Creative Thinking and Emotional Resilience.

Spearman's Correlation

ER Score-CT Score	Spearman's Rho	P	Effect-size
	-0.204	0.042	-0.207

Based on the above results, it can be concluded that there is weak positive correlation between creative thinking and emotional resilience in integrating Gamification among Prospective teachers.

V. DISCUSSIONS

The data collected and analysis shows that there is no significant difference between emotional resilience and creative thinking with respect to demographic variables among prospective teachers. The significant association between emotional resilience and creative thinking in integrating gamification shows, there s a need of introducing gamification strategies in pedagogy. Creative thinking increases emotional resilience. This paper specifies the need of innovations in Pre service education. The primary objective of the paper is to sort out the impact of gamification among prospective teachers. Researches has identified that gamification improves motivation, helps in classroom management. The current study tries to reveal the association between emotional resilience and creative thinking and it proves there's weak positive relationship between emotional resilience and creative thinking. This might provoke for a detailed study about the current topic which would be helpful for teaching professionals. The results would help policy makers to devise gamification strategies that would help the prospective teachers to bulid emotional resilience and creative thinking which are some essential tools for twenty first century classroom.

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