PERCEPTION OF PROSPECTIVE TEACHERS ON GAMIFICATION IN LEARNING

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Abstract: The teaching-learning process has undergone revolutionary shifts in the current educational scenario on a global level. This is mainly due to the educational revolution that took place around the world. The latest form of revolution in education is Gamification. The main focus of the present paper is to study the perception of prospective teachers towards the use of gamification in educational setting. The normative survey method was used to collect data from the prospective teachers from teacher education institutions in Kanniyakumari District. A Gamification questionnaire was employed as the study’s instrument. The study’s findings revealed that the prospective teachers’ perceptions towards gamification in learning are positive as well as negative.

Keywords: Gamification, perception, Education and prospective teachers.

Introduction

Education is a social and cultural goal that is attained through communication and social media. In order to prepare the upcoming generation of teachers for success in the classroom, a larger focus has been placed on gamification now a days. Today’s teachers are expected to successfully instruct a variety of student groups by managing a variety of personalities, skill levels, and preferences. How to keep students engaged in learning while utilizing a variety of activities, games, incentives, surprises, humour, and digitalization poses one of the major challenges in contemporary education (Dadheech, 2019). Gamification in education is a key part of the transformation of the traditional technique of teaching for future teachers in the educational sector.

Need and Significance of the study

Games are highly valued as instructional tools because they can brighten up subject matter and are particularly good at helping students acquire important concepts and problem-solving skill. Present teacher education programme has been making attempts to prepare prospective teachers to develop new technologies and innovative teaching method as tools that can be used in the classroom. The study seeks to find the perception of gaming experience, challenges and barriers in the use of gamification in classroom. The teachers’ skill and the
training make them to adapt the new modern methodology that strongly influences the success of applying gamification as a teaching technique in compliance with its distinctive characteristics.

Statement of the problem

Effective learning always aims at the arousal of interest, effective communication and appropriate outcomes. Conventional teaching and learning method consisted of the presentation and practice of concept and subject matter which is quite passive for a learner. But it can be interesting if it is learned through games and play. It can also pierce distractions and engage learners in a way that few other methods can. This type of learning approach aims to adopt innovative methods to provide learners with the ability to acquire skills and competencies. Hence, the present study is essential and has been titled as ‘PERCEPTION OF PROSPECTIVE TEACHERS’ ON GAMIFICATION IN LEARNING’ as this type of learning, plays an important role in the classroom and motivate the students to learn effectively.

Literature review

Petkas (2019) revealed in a case study that the prospective science education teachers think about the use of gamification as a tool for increasing motivation, saving time and preventing cheating as well as its limitations, such as difficulty in classroom management and technological problems. The data was collected from 44 pre-service science teachers.

Alabbai (2018) explored that the teacher perceptive towards the use of gamification techniques in online learning promote good learning goals. The study used an exploratory research design. A five-point Likert scale was used to collect information. The average percentage for each survey section was used in the data analysis.

Operational definition key terms

Perception

Perception in this study refers to the view of prospective teachers towards gamification in learning.

Gamification

Gamification in this study refers to the scores obtained by prospective teachers in the Gamification Questionnaire.

Prospective teachers

Students who are studying for B.Ed degree course in teacher education institutions in Kanniyakumari District.

Objectives

To study the level of perception of prospective teachers on Gamification in learning.
To compare the mean scores of perception on gamification in learning of prospective teachers based on the background variables academic discipline, educational qualification and medium of instruction.

Hypotheses

There exists no significant difference in the mean scores of perception of prospective teachers on gamification in learning based on the background variables academic discipline, educational qualification and medium of instruction.

Methodology of the study

The investigator adopted normative survey method for the conducting study. The simple random sampling technique was used to select the sample. The investigator has selected 100 prospective teachers studying in fourteen teacher education institutions of Kanniyakumari as the sample of the study. Gamification questionnaire was prepared and it was administered to the prospective teachers along with the personal data sheet. This Questionnaire consists of 15 statements out of which 8 statements were positive and 7 statements were negative, the answer to which are to be given by selecting one of the three categories (Agree, Undecided, Disagree). The scored data was calculated using SPSS package.

Results and discussion

Percentage-wise distribution of perception of prospective teachers on Gamification in learning

Table 1

<table>
<thead>
<tr>
<th>Level of Perception of Gamification</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>20</td>
<td>20.00</td>
</tr>
<tr>
<td>Moderate</td>
<td>58</td>
<td>58.00</td>
</tr>
<tr>
<td>High</td>
<td>22</td>
<td>22.00</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.00</td>
</tr>
</tbody>
</table>

From the table 1 it is clear that the 20% of prospective teachers have low level of perception of gamification in learning, 58% of prospective teachers have moderate level of perception of gamification in learning and 22 % of prospective teachers have high level of perception of gamification in learning.
Table 2

**Descriptive statistics of perception on Gamification in learning of prospective teachers**

<table>
<thead>
<tr>
<th>Gamification scale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>17.00</td>
<td>39.00</td>
<td>29.460</td>
<td>3.79904</td>
</tr>
</tbody>
</table>

**Perception of Prospective teachers on Gamification in learning based on Academic Discipline**

Table 3

*Mean, Standard Deviation and t-test of perception of prospective teachers on Gamification in learning based on academic discipline*

<table>
<thead>
<tr>
<th>Academic discipline</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamification scale</td>
<td>Arts</td>
<td>56</td>
<td>11.0000</td>
<td>1.67332</td>
<td>7.031</td>
</tr>
<tr>
<td></td>
<td>Science</td>
<td>44</td>
<td>14.4545</td>
<td>2.73185</td>
<td></td>
</tr>
</tbody>
</table>

From the table 3 it is clear that the calculated p-value is less than the table value at 0.05 level of significance. Hence, the null hypothesis is rejected. There exists significance difference in the mean scores of perception of prospective teachers on gamification in learning based on academic discipline. The prospective teachers from the science based discipline have more perception of gamification in learning than the arts group.

**Perception of Prospective teachers on Gamification in learning based on Educational Qualification**

Table 4

*Mean, Standard Deviation and t-test of perception of prospective teachers on gamification in learning based on educational qualification*

<table>
<thead>
<tr>
<th>Educational qualification</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamification scale</td>
<td>UG</td>
<td>69</td>
<td>13.1739</td>
<td>2.93035</td>
<td>6.469</td>
</tr>
<tr>
<td></td>
<td>PG</td>
<td>31</td>
<td>11.0645</td>
<td>1.73081</td>
<td></td>
</tr>
</tbody>
</table>

From the table 4 it is clear that the calculated p-value is less than the table value at 0.05 level of significance. Hence, the null hypothesis is rejected. There exists significance difference in the mean scores of perception of prospective teachers on gamification in learning with educational qualification as PG and UG. The prospective teachers having PG degree have more perception on gamification in learning rather than UG degree.
Perception of Prospective teachers on Gamification in learning based on Medium of Instruction

Table 5

<table>
<thead>
<tr>
<th>Medium of instruction</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamefication Tamil</td>
<td>37</td>
<td>28.5946</td>
<td>3.95432</td>
<td>0.018</td>
<td>0.893</td>
</tr>
<tr>
<td>Gamefication English</td>
<td>63</td>
<td>29.9683</td>
<td>3.64102</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the table 5 it is clear that the calculated p-value is greater than the table value at 0.05 level of significance. Hence, the null hypothesis is accepted. There exists no significance difference in the mean scores of perception of prospective teachers on gamification in learning based on medium of instruction. The prospective teachers whose medium of instruction is English have more perception on gamification in learning than Tamil medium of prospective teachers.

Conclusion

Gamification is still considered as an emerging support for effective teaching-learning process. It is an effective approach to make positive changes in students’ learning style and improve their desire to learn. The role of gamification as a support system in the teaching-learning help teachers in teaching even a difficult with ease. The results of the study revealed that the majority of prospective teachers have positive perception on gamification in learning but some of them felt that gamification was difficult to develop in the classroom.

Findings

1. The findings imply that 58% of prospective teachers have moderate perception on gamification.
2. There existed significance difference in the mean scores of perception of prospective teachers based on academic discipline. (p-value 0.009 < 0.05 level of significance) The science group prospective teachers had more perception on gamification than arts group.
3. There existed significance difference in the mean scores of perception of Prospective teachers on gamification in learning with educational qualification as PG or UG degree. (p-value 0.013 < 0.05 level of significance) The prospective teachers are having PG degree had more perception on gamification in learning than UG degree.
4. The existed no significance difference in the mean scores of perception of prospective teachers on gamification in learning based on the medium of instruction. (p-value 0.893> 0.05 level of significance)
Educational implications

1. Gamification in leaning should be integrated in school curriculum and also at the teacher education programme.
2. Gamification will enhance the effective participation in teaching learning process in the classroom.
3. Teachers can adapt the process of game scenario in the classroom by adding its elements to shift the educational application to innovation.
4. Teacher education programmes should emphasis on benefits and barriers of gamification while training the teachers.
5. Teacher training programmes are needed for adoption of gamification that helps confidence development and practice experience of prospective teachers.
6. From an inclusive and technological perspective on the preparedness of future teachers, it is beneficial to include gamification in teaching.

References


