

CHALLENGES IN IMPLEMENTING GAMIFIED ACTIVITIES IN ALICIA EAST CENTRAL SCHOOL

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ABSTRACT

In the 21st century, many changes and innovations have occurred in society and one of these is the existence of using gamified activities in the strategy of teaching career. Gamification is the influence of the growing trend in educational platforms and learning management systems. This research was conducted by 26 teachers from the teaching staff of Alicia East Central School through a descriptive survey and thematic coding analysis. The finding of the study showed that most of the respondents are female, and the range of the age is 31-40 who are in both 1-5 and 6-10 years of service with the majority of master's degree. Additionally, the respondents perceived that gamified activities have a positive and negative impact on teaching pupils. Lastly, the teachers noted some challenges that they encountered in implementing gamified activities, such as the weak connection to the internet, the lack of time for preparation, and the lack of understanding about the gamification process.

Also, they note some effective outcomes of the gamified activities, such as the fun and enjoyment of the students, they get motivated and boost the interest of the students to study.

Keywords: gamified activities, Challenges, perceptions

1. Introduction

In recent years, attention has been directed to the integration of gamified activities in educational settings as a promising approach to engaging and motivating students. Gamification refers to the use of game design elements in non-game contexts with the aim of improving learning experiences and achieving educational goals. Although there are numerous perceived advantages of gamified learning, implementing such activities successfully within school environments is not without challenges.

Gamification has increasingly drawn the attention of academics and practitioners (Hamari et. Al 2014). In addition to gaining popular proponents, the approach has gained traction from positive prospects published in business analyses by Gartner (2011) and IEEE (2014) which predict that most companies and organizations will implement gamification soon. Consequently, operators in various fields have been attracted by the potential of gamification for inducing motivation and engagement for a diverse range of activities. Gamification is the concept of employing game mechanics to engage and stimulate students in learning. In other words, games nowadays are an essential part of a student's everyday life. Teachers' beliefs, customs, and attitudes are crucial to conjecture and develop educational processes. They are closely associated with teachers' strategies for coping with difficulties in their daily professional life and overall well-being. They create students' learning environment and impact student impulse and accomplishment (Torres and Robles 2020).

The concept of gamification influences the growing trend in the educational platforms and learning management systems whereby several universities around the globe is taking advantage of in delivering quality and equitable education for all (Kheirkhahzadeh et al., 2016).

The use of game features in non-gaming contexts, such classrooms, to engage students and create a more playful, game-like environment is known as gamification. In the Philippines, gamification was explicitly applied to basic education, although no research has been done on how well students performed academically in mathematics when they were given games to play Pelegro (2022). According to Tsay et al. (2018), all applications and methods for gamifying students' educational experiences are constantly developing, including new plugins created with the intention of enabling educators to use the content-rich resources assigned using game concepts and designs (Ke et al., 2019) to add depth and interactivity to the conversation. Considering this, Traditional teaching pedagogies, procedures, and techniques have been improved and modified in order to produce a more tailored and contextualized approach to teaching lessons in the classroom (Kim et al., 2018).

Alicia East Central School integrate the gamified activities. This study sought to delve into the specific challenges experienced by Alicia East Central School in adopting gamified activities, encompassing factors such as technological limitations, curriculum alignment, student acceptance. By understanding those challenges, educators and policymakers can devise strategies to overcome barriers and optimize the implementation of gamification in elementary education, adapting a more engaging and effective learning environment for students.

The research used a comprehensive analysis of these challenges together with insights gathered through surveys, and observation to come up with practical recommendations and best practices for overcoming barriers that hinder the successful integration of gamified activities into the school's educational framework.

Objective of the Study

The study aimed at addressing challenges experienced in Alicia East Central School to contribute the wider discussion on gaming learning in Elementary schools as well as serve as a useful resourced for educators or administrators who wish to leverage gamification to enrich their students' learning experiences. Thus, this study explored the respondents' perception and

experiences on the implementation of gamified activities.

Statement of the Problem

This study will focus on the challenges encountered in implementing gamified activities in a public school. It will also determine the effectiveness on its teachers as well as the students, particularly it aims to answer the following questions:

1. What is the profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 sex;
 - 1.3 grade;
 - 1.4 years in service;
 - 1.5 grade level handled; and
 - 1.6 educational attainment?
2. What gamified activities teachers used in teaching in terms of:
 - 2.1 storytelling elements;
 - 2.2 game badge;
 - 2.3 quiz timers;
 - 2.4 point system;
 - 2.5 leaderboards;
 - 2.6 sight word roads;
 - 2.7 progress bar;
 - 2.8 game levels;
 - 2.9 context clues; and
 - 2.10 customization?
3. What are the challenges that teachers encountered when designing and implementing gamified activities in the classroom?
4. How effective the gamified activities in teaching pupils in a public school?

METHODOLOGY

Research Design

In this study the researchers used descriptive survey and qualitative as research design to seek an answer to the topic “Challenges Encountered in Implementing Gamified Activities in Alicia East Central School”. A descriptive survey is a research design aimed at gathering information about the characteristics, behaviors, attitudes, or opinions of a particular population. It involves the systematic collection of data through questionnaires, interviews, or observations, with the goal of describing or summarizing the features of the population being studied. One advantage of using a descriptive survey is its ability to provide a snapshot of a large population's characteristics or opinions in a relatively short amount of time and at a reasonable cost. Additionally, it allowed

researchers to identify patterns or trends within the data, which can be useful for making informed decisions or formulating hypotheses for further investigation.

Respondents of the Study

This survey includes all teachers of Alicia East Central School. The study used entire population sampling, which entails include every member of the population in the research, because the total number of teachers is manageable using this method.

Research Instrument

The instrument used in the study is adapted from Avelino (2023) in this study entitled “Gamified learning”. The part I questionnaire will be the demographic data of the respondents. The researchers also used five-point Likert scale (Never=1, Rarely=2, Often=3, and Always=4) which measure the efficacy of gamified activities in Elementary School.

The researchers will also utilize qualitative method through conducting a survey about the efficacy of using gamified activities in teaching. Moreover, structure interview is used to explore the efficacy of gamified activities to Elementary teachers in Alicia East Central School.

Table 1. Reliability of the Instrument

Rank	Range	Descriptive Interpretation
4	3.28-4.00	Always
3	2.52-3.27	Often
2	1.76-2.51	Rarely
1	1.00-1.75	Never

Ethical Considerations

The cornerstone of ethical research is ‘informed consent’ (Denzin & Lincoln, 2011). The term consists of two important elements, with each requiring careful consideration, that is, ‘informed’ and ‘consent’. Participants are fully informed of what will be asked of them, how the data will be used, and what (if any) consequences there could be.

RESULTS AND DISCUSSION

Section 1. Profile of the Respondents.

Table 2 shows the profile of respondents in terms of age, sex, grade level handled, and educational attainment.

Table 2. Respondent's Profile (n= 26).

		Frequency	Percentage
Age	20-30	4	15.4%
	31-40	12	46.2%
	41-50	7	26.9%
	51- above	3	11.5%
	Total	26	100%
		Frequency	Percentage
Sex	Male	5	19.2%
	Female	21	80.8%
	Total		100%
		Frequency	Percentage
Grade Level Handled	1	2	7.7%
	2	6	23.1%
	3	4	15.4%
	4	3	11.5%
	5	4	15.4%
	6	2	7.7%
	7	0	0%
	8	5	19.2%
	Total	26	100%
		Frequency	Percentage
Years in Service	1-5	9	34.6%
	6-10	9	34.6%
	11-15	4	15.4%
	16-20	3	11.5%
	21 above	1	3.8%
	Total	26	100%
		Frequency	Percentage
Educational Attainment	Bachelor's Degree	9	34.6%
	Doctorate Holder	0	0
	Master's Degree	16	61.5%
	Double master's degree	1	3.8%
	Total	50	100%

As gleaned from the table age 31-40 years old dominated numbering to 12 or 46.2 percent out of 26 respondents. The age 20-30 comprised of 4 or 15.4 percent, while 41-50 comprised of 7 or 26.9 percent and last the 51 above comprised of 3 or 11.5 percent.

Also shown in the table is that the majority of the respondents are females with 21 or 80.8 percent,

while the males consist of 5 or 19.2 percent out of 26 respondents.

In terms of the teacher's grade level handled the most the respondents obtained grade level handled is the k-2 with comprised of 6 or 23.1 percent, followed by grade 6 with 5 or 19.2 percent, followed by grade 1 and grade 5 with both 4 or 15.4 percent, followed by grade 2 with comprising of 3 or 11.4 percent, followed by grade k-1 and grade 4 with both 2 or 7.7 percent, and last is grade 5 with comprising of 0 with 0 percent.

In terms of the years in service, most of the respondents taught 1-5 years and 6-10 years with both 9 respondents or 34.6 percent, followed by 11-15 years with 4 or 15.4 percent, followed by 16-20 years with 3 or 11.5 percent, and last followed by 21 above with 1 or 3.8 percent.

Additionally, in terms of educational attainment most of the respondent's educational attainment is a master's degree with 26 or 61.5 percent, followed by bachelor's degree with 9 or 34.6 percent, and last followed by Double Master's degree with 1 or 3.8 percent.

Gamified Activities	Mean	Standard Deviation	Descriptive Interpretation
1. Storytelling elements	3.00	0.693	Often
2. Game Badge	2.84	0.784	Often
3. Quiz timers	3.03	0.445	Often
4. Point System	2.61	0.941	Often
5. Leaderboards	2.80	0.895	Often
6. Sight Word Road	3.03	0.871	Often
7. Progress Bar	2.38	0.752	Rarely
8. Game Levels	2.88	0.816	Often
9. Context Clues	2.96	0.599	Often
10. Customization	2.76	0.652	Often
Total	2.82	0.7448	Often

Section 2. Gamified Activities Used in Teaching

Table 3. Gamified Activities used in Teaching

Table 3 revealed that gamified activities with a total mean of 2.82 or “often”. It implied that the respondents generally agreed with most of the teachers often used of gamified activities.

The data revealed therefore the positive response towards the gamified activities as their strategy in teaching students. They often used gamified activities in the question 1, 2, 3, 4, 5, 6, 8, 9, 10 “Storytelling Elements, Game Badge, Quiz Timers, Point System, Leaderboards, Sight Word Road, Game Levels, Context Clues, Customization.” Also, they rarely used progress bar in their strategies to catch the attention, to have a better understanding of student, and they used gamified activities as evaluation to know if the students understand their lesson.

Section 3. Challenges encounter when Designing and Implementing Gamified Activities in Classrooms

This presents the explanation of respondents in the challenges they encounter when designing and implementing gamified activities in the classroom at Alicia East Central School.

Theme 1. Lack of Understanding

The teachers-respondents encountered challenges in implementing gamified activities. Respondents 1, 7, 10, 16, 20, 23, and 25 explained the lack of understanding wherein those respondents stated that *“lack of understanding of the gamification process. Games need to be aligned with the learning objectives outcome”*; *“lack of understanding of the gamification process. Practical issues, cost and time, for example, costly to design, implement and maintain, requiring financial, human and material resources”*; *“lack of information and understanding about this process”*; *“difficulty in following the instructions and level of understanding of the learners”*; *“lack of understanding process”*.

One main barrier for teachers to use gamification in their courses is the perceived lack of resources including time to prepare gamified activities, lack of knowledge on gamification, and inappropriate classroom setting or gamified activities. Teachers seem to need organizational support (including Teachers Training Programmes) to overcome these limitations (Sanchez 2017).

Theme 2. Lack of Time

Most of the teacher's-respondents encounter lack of time in designing and implementing gamified activities in classroom. Respondents 4, 5, 6, 17, 18, 21, 22, 24, and 26 explained their experience in lack of time wherein those respondents stated that *“the challenges that I encountered in implementing gamified activities in the classroom are lack of time and the behavior of the students”*; *“lack of time in preparation”*; *“need preparation”*; *“the challenges that I encountered when designing and implementing gamified activities in my classroom are the unruly behavior and the lack of time”*; *“lack of time”*.

One of the primary deterrents for educators using gamification in their classes is the seeming deficiency of resources, such as time inadequate understanding of gamification, an unsuitable learning environment, inability to plan gamified activities for gamified tasks (Sanchez 2017).

Theme 3. Internet Connection

The teachers-respondents also emphasis the internet connection as one of the problems in implementing gamified activities. Respondents 2, 3, 12, 13, and 15 stated that *“the weak of internet connection and the unavailability of gadgets especially to the pupils who cannot afford to buy smartphones”*; *“weak internet connection and unavailability of gadgets of pupils”*; *“accessibility not all learners have access to gamified activities. Make sure that games are accessible to all learners including those with device learning needs, which can be difficult.”*

Online learning can be challenging, particularly for those with little resources. In online classrooms, smartphones, other devices, and internet connections are essential considering that kids use them to learn online, which is necessary for succeeding involvement in distance learning as well as for resolving a range of other issues in the new normal (Juan 2023).

Theme 4. Seldom

The teachers-respondents seldom used gamified activities as strategies in teaching. Respondents 14 and 19 stated that *“I seldom used gamified activities”*; *“I seldom used gamified activities because of the internet connection.”*

Teachers' opinions on pupils' lack of more study is needed to determine why pupils are interested in gamified activities, however, one possibility is that they are *“Just playing, not learning.”* Teachers should thus carefully craft gamified programs so that students can recognize the activity's educational value and react to it in the manner that teachers anticipate, i.e., highly inspired to engage in the gamified activity (Sanchez 2017).

Theme 5. Ability

The teacher-respondent 9 stated *“Ability of the pupils.”*

Theme 6. Behavior

The teacher-respondent 8 stated that *“when I used gamified activities in my classroom my pupil's behavior became exuberant because of their excitement”*. *Some of them lose control.* The noise level gradually increases and that situation is out of control which makes it stressful. But dealing with their behavior and Reince forcing some rules and registration the challenges became manageable.

Section 4. Effective of gamified activities

This presents the explanation of respondents on how effective the gamified activities at Alicia East Central School.

Theme 1. Motivation

Most of the teacher-respondents used gamified activities as motivation. Respondents 3, 4, 10, 11, 14, 15, 17, 18, 19, 21, 23, 24, 25, and 26 stated that *“the effective of gamified activities is to improve the student's engagement”*; *“motivates the learners to learn”*; *“gamified can be highly effective in teaching pupils in public schools.* It increased engagement where it captures learners' attention and motivates them to participate actively in learning activities”; *“it improves pupils' motivation, engagement and interaction with peers which led to increased interest in certain subjects and enhance their cognitive.*

Like how games may increase student engagement, gamification of education can do the same to help students learn more effectively and develop certain abilities. However, research has demonstrated that user choices might have unfavorable effects (Marques 2020).

Theme 2. Fun and Easy

Some of their teachers-respondents used gamified activities for the fun and enjoyment of students. Respondents 1, 5, 6, 8, 16, 20, and 22 stated that *“learners can retain information for a longer time frame. It's fun and easy”*; *“Gamified is effective in teaching pupils in a public school because it makes learning fun and easy to understand.* The information also that they learned is retained into

the mind for a longer time”; *“enjoying while doing the activity”*; *“learners improved cognitive domain, it’s fun and easy.”*

Most kids may perceive gaming and learning as two quite different activities since one occurs in a classroom and the other is connected to leisure time. However, the two work remarkably well together. A growing number of educators are incorporating game-like components into their lesson plans, such as challenges, awards, and scoreboards, as part of the gamification of education trend. Teachers can witness the advantages of gamification via their students' enthusiasm and involvement with the novel teaching methods by including these modifications into their courses on occasion (Sphero 2020).

Theme 3. Boost Interest

The teacher-respondent 2 stated that *“it boosts the interest and navigates learners to learn.”*

One of these tactics, gamification for learning, is becoming more and more popular among educators worldwide. The use of gamified components has the potential to enhance student engagement and cooperation, leading to more effective learning outcomes. Gamification is the process of using game techniques to enhance and personalize learning for each learner. Because games foster the development of lifetime skills like problem-solving, critical thinking, social awareness, cooperation, and teamwork, gamification for learning might be advantageous. Additionally, games can improve grades, stimulate interest in particular courses, decrease learner attrition, inspire individuals, and sharpen cognitive talents (Severino 2024).

Theme 4. Cannot Assess

One of the teacher-respondent 13 stated *“I cannot assess.”*

Theme 5. No Response

One of the teacher-respondents 12 left the paper with no response.

CONCLUSIONS

Based on the aforementioned findings, the following conclusions are derived: Most of the teachers-respondents are 31-40 years old individuals. Most of them are female and majority in k-2 grade level handled. Also, majority in 1-5 and 6-10 years in service with the educational attainments with the majority of master’s degree.

The teachers-respondents face challenges in implementing gamified activities determine the following problems and challenges: weak internet connection, lack of time, lack of understanding and the behavior of the students.

It perceived those gamified activities has a positive impact in the strategy in teaching of the teachers. By the used of gamified activities in their teaching it helps them to catch the attention of their students, to motivate them, and to have a better understanding.

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