

# Survey Study: Teacher's Response To The Use of Gamification Approach in Teaching and Learning Visual Art Education

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## Abstract

Teachers play a crucial role as guides in a learning environment. The effectiveness of teaching and learning in the classroom depends on the teacher's efforts in various aspects, particularly the methods and approaches used in teaching. This survey study examines teachers' perceptions of gamification methods in teaching and learning Visual Arts Education (VAE). Quantitative approaches were employed as research methodologies. A total of 150 VAE teachers participated in the conducted survey. The research findings revealed that using gamification methods in teaching and learning sessions is based on their effectiveness and ease of use. Additionally, the challenges faced during the implementation of gamification approaches in teaching and learning sessions were also examined and discussed in this study. The research findings were analyzed using SPSS software to obtain the mean rate. Gamification approaches positively impacted VAE teaching and learning sessions. However, there is still room for improvement based on the challenges mentioned by the study respondents. The results obtained can be used as a scientific guide and reference for future researchers in improving the quality of education.

**Keywords:** Gamification Approach, Teacher's Perception, Visual Art Education.

## Introduction

Gamification applies and integrates game elements and design in non-game contexts (Spanellis et al., 2020). It is also considered a smart move that is evolving alongside the industrial era (Shanon, 2020). In education, gamification is a strategy that highlights game elements and motivational mechanisms commonly found in video or digital games to enhance student engagement, motivation, and learning. This approach is an innovative effort to make teaching and learning sessions more exciting and effective based on constructivist learning, emphasizing learning through experience via social interaction among the learning environment and peers (York et al., 2018; Mei & Surat, 2021). The acceptance of gamification in education has been widely studied and evidenced through research indicating that the learning strategies successfully create a more effective and engaging learning experience than conventional approaches. However, several challenges are related to engagement and support in pedagogy (Koh et al., 2012; Shaari, 2022).

Classroom managers and teachers responsible for maintaining student discipline throughout teaching and learning sessions must practice effective teaching methods and approaches to create a conducive and enjoyable learning environment. An effective teaching and learning strategy in the era of the Fourth Industrial Revolution is based on four main elements: creativity, reflectivity, reciprocity, and responsibility (Hajar et al., 2019; Hambali, 2022). Teaching techniques enhance student engagement and motivation and promote active learning. Teachers must strive to strengthen and expand their expertise in delivering effective teaching and learning, especially in 21st-century learning (PAK-21) (Shaari, 2022). Therefore, the gamification approach is one of the efforts to capture students' interest and involvement in teaching and learning sessions.

Therefore, a crucial synergy in using this approach is to obtain teachers' feedback on its effectiveness and usability. Teachers' feedback on this approach influences the learning process and environment. This is because selecting the appropriate approach in the teaching and learning process is an essential aspect that needs attention to ensure that the direction and learning objectives can be achieved by the end of the teaching session (Shaari, 2022). The effectiveness of the gamification approach varies depending on various factors, such as design and learning environment. Hence, during teaching and learning sessions, a survey was conducted to gather teachers' views, particularly on VAE.

### **Research Background**

Students' creativity, critical thinking, and artistic development are seen to be enhanced through VAE learning. Through VAE teaching and learning, students can express themselves, understand visual culture, and learn and hone their creative skills (DSKP PSV, 2017). To elevate the status of PSV and make art teaching more dynamic and engaging, the gamification approach has emerged as an innovative teaching method that attracts attention in the education world. This approach refers to applying gamification elements within the learning content (Abdullah & Razak, 2021).

This approach can stimulate the creative skills and motivation of students. The advancement of technology gives students more access to digital games and interactive tools. Gamification elements turn teaching and learning VAE more effective in enhancing the quality of learning. Through Ahamad et al (2022) study, also emphasizes the use of digital technology in Education helps to produce first-class human capital. This approach also aims to make VAE more practical, creative, and result-oriented.

Past studies have shown, the gamification approach has received positive acceptance in various educational fields such as Arabic Language Lutfiyatun (2021), Islamic Education Hambali & Lubis (2022), Chemistry Lutfi et al (2021), Physics Badratusyahryah et al (2022), English Language Sari & Nurani (2021), and Malay Language (Hushaini et al., 2022). However, its use in VAE is still limited and has yet to receive the deserved attention within the education community. Studies on teachers' perceptions of the gamification approach in VAE learning are crucial to understanding on how this approach can strengthen the teaching and learning process. In conclusion, this study is expected to provide a deeper insight into teachers' perceptions and responses to using the gamification approach.

### **Research Problem**

VAE plays a crucial role in students' development. Through VAE learning, students can expand their creativity, understanding, and artistic skills (Ladin et al., 2021). Generally, implementing this approach in the teaching and learning process is a way to address challenges and create

an intellectual educational experience for students (Ong et al., 2013; Abdullah & Razak, 2021). With the rapid development of the digital era, the gamification approach has gained general attention and emerged as an innovative method or strategy to enhance the quality and learning experience (Hushaini, 2022). Applying game elements and mechanisms such as achievements, competition, rewards, and interaction in the teaching and learning process helps enrich students' experiences and stimulate their skills. Abdullah (2021), through his study, also stated that this approach is a 21st-century learning medium that can enhance students' thinking skills and abilities, such as problem-solving, 21st-century skills, and higher-order thinking skills.

Although this approach has been widely used and received positive attention in several disciplines and other fields, its use in education, especially VAE, still needs to be improved and requires further research. Therefore, this problem is reflected in the survey conducted to see the extent of VAE teachers' responses and acceptance of the gamification approach as an effective tool in improving the PSV learning experience. The results of this study are expected to provide valuable input for developing more exciting and compelling PSV among students and help teachers better understand the gamification approach's potential in this context.

### **Literature Review**

The gamification approach in VAE is a synergy of various parties, especially teachers and teaching staff, which aims to form a VAE learning that is more meaningful and interesting. The teaching and learning process needs to be more interactive by prioritizing interaction among students and students with teachers, which, in turn, encourages student skills development (Lutfiani et al., 2023). Therefore, teachers should be more creative and innovative in teaching methods to make teaching and learning more exciting and compelling. This approach significantly positively affects various aspects of education (Hambali & Lubis, 2022).

Gamification is widely used in education to take advantage of the need for competition in students, which leads to the desire to succeed (Rizzardini et al., 2016; Surat, 2021). The game elements highlighted in the teaching and learning process motivate and increase the active involvement of students in the teaching and learning process. Gamification is the approach that gets the most attention and is often used by instructors during teaching and learning sessions because this approach is interactive and able to influence students to follow learning (Irma et al., 2021). Badryatusyahryah (2022) also stated that the gamification approach in education is a method that can have a positive effect on increasing student motivation, perseverance, activity, and involvement. Gamification is a potential approach to attract students' interest in mastering VAE. Students' interest in learning supports quality and effective teaching and learning.

Conventional learning is a method of teaching and learning that emphasizes the use of traditional media, which consists of books, blackboards, and teaching aids (Syarifuddin, 2022). Traditional learning can also be defined as attitudes, ways of thinking, and actions used to define norms and customs that have existed for generations (Hidayatullah, 2015; Fahrudin, 2021). Conventional learning methods are also referred to as traditional learning concepts.

Conventional learning is learning done monotonously and verbally through the delivery of material that depends on the lecture or teacher-centred method (Fahrudin, 2021). The process of conveying information, values, and other things using this method continues in one direction from the teacher to the students. The teacher prepares and delivers a complete lesson as an instructor, while the student depends entirely on the teacher to obtain

knowledge and answers. There are several characteristics of conventional learning, according to (Syarifuddin, 2022). Namely, students do not know the purpose and objectives of education, teachers teach based on books as the primary source, tests and assessments are summative, students need to emulate the way of learning set by the teacher and less given the opportunity to express opinions and share.

Based on the explanation, it can be concluded that conventional learning is more teacher-centered, one-way communication from teacher to student; learning methods prioritize concept mastery over competence. Through this method, teachers play a vital role in influencing the quality of student learning. The gamification approach could change how VAE is taught and learned. However, the effectiveness of this approach depends on various factors, such as the learning context, the teacher's goals, and perceptions in creating incentives for students to learn (Voon & Amran, 2021). Therefore, a careful teaching plan needs to be done to meet the needs of the students and enable the learning objectives to be achieved.

### Research Methodology

A quantitative survey study was chosen as the study design to provide a concrete and comprehensive understanding of the gamification approach in VAE learning. The study is focused on collecting and analyzing data on teachers' responses to the gamification approach in VAE learning. Fifty questions were distributed to 150 VAE teachers using a simple random sampling method.

### Research Instrument

A questionnaire was used to collect data from the respondents in this study. The questionnaire aimed to measure teachers' responses to gamification approaches in VAE. The data collected focus on teachers' opinions, views, and confidence in the effectiveness and usability of gamification in education, especially in VAE. The questionnaire conducted includes three parts, namely:

Table 1

#### *Number of Questionnaires*

Section	Bilangan Item
Part 1: The Effectiveness of Gamification Approaches	32
Part 2: Applicability of Gamification Approaches	15
Part 3: Challenges using the Gamification Approach	3
<b>Total</b>	<b>50</b>

The research instrument used includes three parts consisting of 32 items related to the effectiveness of the gamification approach and 15 items related to the usability of the gamification approach in the form of a Likert scale to be used as a choice about statements of agreement between two extremes, namely strongly disagree (SD) and strongly agree (SA). Three open questions about the challenges of using the gamification approach were prepared in the third part.

Table 2

*Likert Scale Categories*

Category	Scale
Strongly Disagree	1
Disagree	2
Not Sure	3
Agree	4
Strongly Agree	5

*Data Collection and Analysis*

Data was collected by distributing questionnaires online using the Google Forms application after obtaining official permission from the Johor State Education Department. The built survey link was distributed through the Whatsapp and Telegram platforms. The time frame for collecting responses from respondents takes two weeks. The questionnaire results will be screened and analyzed using SPSS version 21 to get the average mean rate. The interpretation of the mean in this study refers to the setting of the mean scale modified by Zulkifili and Noor (2023), as in Table 3.

Table 3

*Interpretation of Min Score.*

Min Score	Level
0.00 – 1.66	Low
1.67 – 3.33	Average
3.34 – 5.00	High

**Findings and Discussions**

This section shows the results of the study based on the distributed questionnaire. The research data obtained based on the feedback from the respondents was analyzed to answer the research question, which is the teacher's response to using the gamification approach in VAE teaching. The questionnaire survey covered the effectiveness, usability, and challenges associated with using this approach. The questionnaire for the effectiveness and usability of the gamification approach was analyzed statistically descriptively using the average mean for each item.

**The Effectiveness of The Gamification Approach**

To see the effectiveness of the gamification approach in VAE teaching and learning, questionnaires were prepared to be distributed to teachers who teach VAE. The set of questionnaires given includes four items, namely (i) student involvement and response, (ii) communication in the class, (iii) class control, and (iv) learning outcomes. Overall, the results of the study are explained in Table 4.

Table 4

*A Survey of the Effectiveness of Gamification Approaches*

Item	N	Min	Level
Student engagement and response	150	4.0	High
Communication in the classroom	149	4.16	High
Class control	150	3.98	High
Learning outcomes	148	4.19	High

The above study's findings provide a clear picture of the effectiveness of the gamification approach in VAE teaching and learning. Based on the items listed, the average mean for the learning outcomes item is higher than the other items (mean = 4.19). Meanwhile, the lowest average mean is on the class control item (mean = 3.98). The study results show that the overall mean for this questionnaire is high.

*Usability of The Gamification Approach*

To ensure the applicability of the gamification approach in PSV teaching and learning, the researcher has prepared a set of questionnaires to ask the respondents. This questionnaire includes four items to assess the usability of the gamification approach, namely (i) induction, (ii) learning content, (iii) conclusion, and (iv) the overall experience. Table 5 describes in detail the results of the questionnaire.

Table 5

*Gamification Approach Usability Questionnaire*

Item	N	Mean	Level
Induction	150	4.68	High
Learning content	149	4.07	High
Closing	149	4.05	High
The whole experience	150	4.24	High

The table above clearly explains the study's findings related to the applicability of the gamification approach in PSV teaching and learning. Based on the research findings, the average mean for the closing item is the lowest (mean = 4.05). Meanwhile, the average mean for induction items is the highest (mean = 4.68). The study results show that the overall mean for this questionnaire is high.

*Challenges Using A Gamification Approach*

The gamification approach is a method that involves the use of game elements in the context of teaching and learning. This approach has received wide attention in the field of education, including the subject of VAE. Although this approach has potential advantages and positive effects, some challenges are expressed by teachers who teach VAE. The results of the distributed questionnaire were transcribed and analyzed, as explained in Tables 6 and 7.

Table 6

*Theme determination and coding.*

Themes	Code
Facilities and infrastructure readiness at the school.	1
Class control	2
Problems faced by students	3
Time constraints	4
Technical problem	5
Cost and budget	6
Alignment with teaching goals and objectives.	7

Table 7

*Transcription of questionnaire responses*

Responds	Code						
	1	2	3	4	5	6	7
Students still do not understand			/				
Limited ICT infrastructure resources	/						
Class control. When the students are too excited during the induction set, the class situation becomes quite challenging to control to calm the students down to start the learning session.		/					
The problem is the need for more technology tools, such as laptops and slow data/internet connections, so students take the opportunity to do other things with technology tools.	/	/					
Time constraints			/				
Technical problems may occur.					/		
The challenge for those who build a game platform is to have the expertise to make this gamification and also make a QR code on the textbook, which is limited to students using digital devices at school.	/				/		
Class control		/					
Internet	/						
The smoothness of the web or apps	/						
Cost of purchasing equipment.						/	
Find something new for every learning session.							/
Time constraints				/			
Level of student focus			/				
Students are becoming lazy.			/				
Internet line	/						
Acceptance of students			/				
No facilities	/						
Student understanding			/				
Student focus			/				

Limited learning hours. Didn't have time to complete the learning process well				/			
The problem with the need for more technology tools in schools is reducing teachers' use of gamification-based learning.	/						
Class control problems. Pupils become too active.		/					
Budget and resources						/	
Alignment with learning goals							/
<b>Total</b>	8	4	7	2	2	2	2

The study found several challenges teachers face when carrying out VAE teaching and learning using this approach. Based on the findings, teachers often need more school facilities and infrastructure, such as internet networks, digital devices, and appropriate technology. This is because implementing this approach requires access to relevant technology resources. Ahmad et al (2022) also stated that a learning environment based on Information Technology and communication encourages students to explore knowledge. Schools or teachers who do not have access to the necessary software or digital devices need help incorporating gamification elements into teaching and learning sessions.

In addition, problems related to students are also the main challenges expressed by teachers. Among the problems stated is that students' focus could be more relaxed, and students also take advantage of the facilities available by doing things unrelated to their learning. Student motivation and focus play an essential role in ensuring that they acquire knowledge and meaningful learning experiences (Nasir & Mansor, 2021); teachers need to find a way to overcome this problem and ensure that student's interest in learning sessions can be maintained. The challenge that the teacher also stated in this questionnaire was class control. Gamification elements used in teaching and learning, especially during induction sessions, make students too excited and active, resulting in teachers having problems controlling the atmosphere and discipline of students in the classroom.

Among other challenges and obstacles for teachers using this approach in learning VAE are time constraints. The teacher explained that the limited VAE time made it difficult to use this approach during VAE sessions. Technical problems and costs are also significant challenges because teachers must have the necessary knowledge and skills to use this approach to maintain digital devices. This challenge is also the main thing to pay attention to. Teachers must align themselves with current changes and developments by developing skills and knowledge in Communication and Information Technology (Norehan & Mahaliza, 2021). Lack of skills will take time and disrupt the teaching session. The cost of upgrading interactive websites such as Plickers, Kahoot, and so on is necessary to ensure that students have a practical learning experience. Next is coordination with teaching goals and objectives. This approach requires precise coordination and fit with PSV goals. Teachers experience difficulty in implementing gamification elements such as rewards and competition, which can increase student motivation and need to be aligned with learning objectives that are creative and subjective.

Although some challenges must be overcome when using the gamification approach in learning VAE, this approach still has room to improve quality. Intelligent and effective planning can make this approach practical for enhancing the learning experience and student motivation.



*Opinions and Suggestions for Improving the Gamification Approach*

Most teachers gave positive opinions and feedback on gamification approaches in VAE learning sessions. They believe this approach can increase student motivation and involvement in learning sessions. Additionally, teachers with exposure, experience, and in-depth knowledge about this approach are more open and competitive when planning quality gamification activities. Nevertheless, less skilled teachers need help using this approach during learning sessions due to several factors, such as class control problems and difficulty evaluating artworks using gamification methods. They are more likely to use conventional learning methods when conducting learning.

Therefore, efforts to improve the gamification approach in VAE have also been given attention. Thus, this questionnaire also recorded and analyzed feedback from respondents regarding suggestions for improvement. The results of the questionnaire were analyzed and categorized according to the theme. The following are suggested improvements compiled and classified into several themes that can be considered.

Table 8

*Suggestions for improving the gamification approach*

Theme
Diverse forms of gamification to attract students' interest in learning.
Increase the use of technology in VAE subjects.
VAE I still needs to be conducted conventionally.
Allocation of appropriate gadgets and improving school facilities
Provide an appropriate method to evaluate student work using a gamification approach.
Give students initial exposure to the gamification approach.
Extend VAE learning time.
Regular training will be conducted, and learning activities will be updated.

With these recommendations in mind, the gamification approach in VAE subjects has the potential to be more attractive, practical, and relevant. This approach will also be more effective in providing a meaningful learning experience to students, especially in the subject of VAE.

**Conclusion**

This study aims to provide a deeper insight into VAE teachers' responses to integrating gamification approaches in their teaching and the effects on student performance and interest, especially in PSV subjects. In addition, knowledge from this study will help improve the development and use of gamification approaches in visual arts education to enhance students' learning experiences.

Overall, the gamification approach in VAE has excellent potential to improve the learning experience and student motivation. However, the effectiveness and applicability of this approach depend on the cooperation of the school, the understanding and evaluation of teachers, and the wise coordination of learning goals. With efforts to improve educational resources and careful planning, this approach can be an effective tool to strengthen VAE in the future.

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