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Opinion of Teachers towards Game Based Pedagogy in Secondary Schools

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Abstract
The study explores the opinions of secondary school teachers regarding the integration of game based pedagogy into classroom instruction. As educational paradigms shift towards more interactive and student centered approaches, GBL (game based learning) has gained attention for its potential to enhance student engagement, motivation and learning outcomes. The research investigates how teachers perceive the effectiveness, practicality and challenges of implementing GBL in the secondary school context. Data was collected through surveys and interviews with teachers of various subjects. Findings reveal a generally positive attitude towards game based pedagogy, with many teachers acknowledging its ability to foster deeper understanding, collaboration and critical thinking skills among students.

Keywords: Game based pedagogy, gamified evaluation, digital learning.

Introduction

A dynamic teaching strategy that incorporates game aspects into the curriculum to improve learning results and student engagement is called game-based pedagogy. Traditional teaching strategies like rote learning and lecture-based instruction can occasionally fall short of keeping students' attention in secondary schools, where they frequently face academic pressure and a strict curriculum (Prensky, 2001). Conversely, by turning teachings into interactive experiences, game-based learning encourages critical thinking, problem-solving, and active engagement (Gee, 2003). Students' learning can be made more interesting and pleasurable by using educational games, role-playing exercises, and gamified evaluations, especially in areas that call for analytical and conceptual knowledge (Plass *et al*., 2015).

With mobile applications, online platforms, and interactive software providing creative ways to teach a variety of subjects, the quick development of technology has increased accessibility to digital game-based learning (Hamari *et al*., 2014). Nevertheless, game-based learning encompasses more than just digital resources; it also involves conventional board games, classroom simulations, and experiential learning exercises that produce an entertaining yet instructive atmosphere (Squire, 2011). Compared to passive learning techniques, these methods assist students retain information better by encouraging them to investigate concepts in a practical way. The use of game-based approaches has been especially beneficial for disciplines like physics, math, and language studies since it allows for experimentation and instant feedback (Whitton, 2012).

Notwithstanding the advantages, there are a number of obstacles to game-based pedagogy's acceptance in secondary schools. Due to a lack of experience or proper training, many teachers who are used to traditional teaching methods may be reluctant to incorporate games into their lesson plans (Koster, 2005). Furthermore, there is worry that, especially in academic settings where exams are the main focus, game-based learning could be perceived as a diversion rather than a valid teaching tool (Brown, 2017). The degree to which game-based approaches are in line with curriculum objectives and the readiness of educators to adopt novel teaching techniques determine how successful they are (Deterding *et al*., 2011).

The availability of resources is another major issue, particularly at educational institutions with limited access to digital technologies. While some educational institutions have effectively integrated instructional games into their curricula, others face challenges related to insufficient infrastructure. Making the large-scale implementation of digital learning technologies challenging (Foster *et al*., 2020). Furthermore,

different educators have different opinions regarding game-based learning. While some acknowledge that it can enhance students' motivation and cognitive abilities, others are dubious about its long-term effects on academic achievement (Plass *et al*., 2015).

Game-based teaching has the potential to improve learning's effectiveness, enjoyment, and purpose. Teachers can foster an environment where students are inspired to actively engage in their learning process by utilizing game dynamics including challenges, incentives, and teamwork (Prensky, 2001). Game-based pedagogy's importance is anticipated to grow as educational institutions continue to change, providing new opportunities to enhance instructional strategies and student results.

An educational strategy known as "game-based pedagogy" incorporates game mechanics and components into the teaching-learning process in order to increase motivation, encourage student participation, and boost learning results. This teaching approach emphasizes critical thinking, problem-solving, and active engagement and is influenced by constructivist and three experiential learning theories. Conceptualizing (Gee, 2003). In contrast to conventional rote learning techniques, game-based pedagogy offers an engaging and dynamic learning environment where students take an active role in the process rather than being passive consumers of knowledge. Games can be made to fit particular learning goals, giving students the chance to investigate ideas, try out various approaches to problem-solving, and get quick feedback on how they're doing (Salen & Zimmerman, 2004).

The capacity of game-based teaching to increase students' intrinsic motivation is one of its main features. In order to keep students interested and involved in the learning process, games frequently include components like obstacles, rewards, and storytelling (Ryan & Deci, 2000). By fostering a sense of accomplishment and advancement, the use of gamification concepts like leaderboards, badges, and points further strengthens motivation (Deterding, Dixon, Khaled, & Nacke, 2011). Students are more likely to adopt a positive attitude toward school and exhibit higher levels of participation when they believe that studying is a fun and fulfilling experience (Gee, 2005).

Additionally, game-based teaching fosters the growth of vital 21st-century abilities like flexibility, teamwork, and problem-solving. Students must use strategic thinking, situation analysis, and decision-making skills to play many instructional games (Annetta, Minogue, Holmes, & Cheng, 2009). In particular, cooperative and multiplayer games promote communication and teamwork, which in turn promotes social interaction and peer learning (Vogel *et al*., 2006). In a low-risk setting, these exercises assist students in developing resilience and tenacity as they overcome obstacles, try out various strategies, and grow from their errors (Prensky, 2001).

A variety of instructional strategies that include gaming components into the learning process to improve motivation, engagement, and knowledge retention are together referred to as game-based learning (GBL). Diverse topic content, learning objectives, and educational demands are met by various forms of game-based learning (Plass, Homer, & Kinzer, 2015). Depending on the situation, each of these strategies-which vary from traditional board games to digital simulations-offers special advantages. Teachers can choose the best approach to match curricular objectives and student preferences by being aware of the various forms of game-based learning.

Advantages of Game-Based Pedagogy

By introducing play, challenges, and incentives into the educational process, game-based pedagogy has become a potent tool for improving learning experiences. It transforms the conventional passive learning paradigm into a dynamic, captivating, and participatory procedure. This approach improves cognitive, social, and emotional growth in addition to making learning fun. According to research, students that participate in game-based learning exhibit increased enthusiasm, enhanced problem-solving skills, and better information retention (Gee, 2003).

The integration of digital and non-digital games into the curriculum offers multiple benefits, ranging from personalized learning experiences to fostering collaboration an Game-based pedagogy has gained increasing attention as an innovative approach to enhancing student engagement and learning outcomes. This study holds significant value for multiple stakeholders, including educators, policymakers, students, and researchers, as it explores the effectiveness, challenges, and implications of integrating game-based learning into secondary education. By analyzing teachers' perspectives on game-based pedagogy, the study provides valuable insights that can inform educational reforms, curriculum development, and instructional strategies. For educators, the study highlights the pedagogical benefits of game-based learning, such as increased student motivation, active participation, and deeper conceptual understanding. Many traditional teaching methods rely on passive learning approaches, whereas game-based pedagogy fosters interactive and experiential leaning and creativity.

Statement of the Problem

The researcher had undertaken this research work entitled, “Opinion of Teachers towards Game Based Pedagogy in Secondary Schools”.

Research Questions

This study aims to explore the opinions of secondary school teachers regarding game-based pedagogy and its potential to enhance education. To achieve this, the following research questions guide the investigation:

1. What are secondary school teachers' perceptions of the benefits of game-based pedagogy in enhancing education?
2. What challenges do secondary school teachers face in implementing game-based pedagogy in classrooms?
3. How ready and willing are secondary school teachers to adopt game-based teaching Strategies in their practices?
4. What support and resources do teachers need to effectively integrate game-based pedagogy into the curriculum?

Objectives of the Study

1. To examine teachers' perceptions of the benefits of game-based pedagogy in secondary school education.
2. To identify challenges faced by teachers in implementing game-based pedagogy in classrooms.
3. To analyze teachers' readiness and willingness to adopt game-based teaching strategies in their practices.
4. To explore support and resources needed by teachers for effectively integrating game based pedagogy into the curriculum.

Methodology

The study employed a descriptive survey research design,

which was deemed suitable for analyzing teachers' perceptions of game-based pedagogy. This design facilitated the systematic collection and interpretation of data regarding teachers' experiences, opinions, and challenges in implementing game-based teaching strategies. Both interview and through questionnaire data were collected to provide a well-rounded understanding of the subject.

Sample Size: A total of 100 secondary school teachers of khorda district were selected as participants. The sample Included teachers from various academic disciplines to capture a holistic view of their perceptions and opinions.

Sampling Technique: A stratified random sampling technique was employed to ensure

Proportional representation of teachers from government and private schools. This method minimized sampling bias and provided a balanced perspective on game-based pedagogy across different educational settings. The stratification ensured that teachers from different school types and backgrounds were included, allowing for a more accurate analysis of opinions and challenges.

The survey data collected from secondary school teachers regarding their opinions on game-based pedagogy. The structured questionnaire included both closed-ended and open-ended questions, allowing for a qualitative analysis of teachers' perceptions, benefits, challenges, and readiness to implement game-based learning in classrooms. The qualitative responses have been analyzed using descriptive statistics, including percentages and frequency distributions, and are visually represented through tables, bar graphs, and pie charts for clarity. The open-ended responses provide additional insights into teachers' concerns and expectations regarding game-based teaching strategies. By analyzing this survey data, the study aims to understand the extent of awareness, acceptance, and willingness among teachers to integrate gamebased learning into their teaching practices.

Table 1: Types of School

School	Number of teachers	Percentage
Government	50	50%
Private	50	50%

Table 2: Subject Taught

Subject	Number of Teachers	Percentage (%)
Science	30	30%
Mathematics	25	25%
Social Studies	20.00	20%
Languages	15	15%
Other	10	10%

Table 3: Do you believe game-based learning can enhance student engagement in your subject?

Response	Number of teachers	Percentage
Strongly agree	40	40%
Agree	35	35%
Neutral	15	15%
Disagree	7	7%
Strongly disagree	3	3%

The majority of teachers supported game-based learning for student engagement, with 40% strongly agreeing and 35% agreeing. A smaller portion remained neutral (15%), while 7% disagreed and 3% strongly disagreed. This suggests a predominantly positive perception, though some educators may have reservations about its effectiveness.

Table 4: To what extent do you think game-based pedagogy improves students' learning outcomes?

Response	Number of teachers	Percentage
Very Effective	42	42%
Moderately effective	38	38%
Slightly effective	15	15%
Not effective	5	5%

A majority of teachers found game-based pedagogy beneficial, with 42% considering it moderately effective and 38% viewing it as very effective in improving student learning outcomes. 15% found it slightly effective, while only 5% believed it was not effective, indicating overall confidence in its positive impact.

What is the biggest challenge in implementing game-based pedagogy in your classroom?

Lack of resources (technology, software, internet access) 35-35% Lack of training on how to integrate games in teaching 30- 30% Time constraints due to syllabus coverage 25-25% Resistance from school administration or parents 10-10% The most significant challenge reported was lack of resources (35%), followed by lack of training (30%) and time constraints (25%). A smaller percentage (10%) cited resistance from administration or parents. These findings highlight the need for better infrastructure, training, and time management strategies for successful implementation.

Table 6: In your opinion, should game-based pedagogy be integrated as a formal teaching strategy in secondary education?

Response	Number of teachers	Percentage
Strongly agree	45	45%
Agree	30	30%
Neutral	15	15%
Disagree	7	7%
Strongly disagree	3	3%

A significant 75% of teachers (Strongly Agree: 45%, Agree: 30%) supported integrating game based pedagogy as a formal teaching strategy in secondary education. 15% remained neutral, while a small portion (10%) disagreed, indicating overall positive reception with some reservations about its feasibility.

Support for Formal Integration of Game-Based Pedagogy: Finally, 45% of teachers strongly agreed, and 30% agreed that game-based pedagogy should be integrated as a formal teaching strategy. 15% remained neutral, while 10% disagreed. The overall 75% support rate suggests that with adequate resources and training, game-based teaching could become an essential component of secondary education.

The study findings indicate that while awareness and willingness for game-based pedagogy are high, significant challenges-particularly in training, resources, and curriculum flexibility-hinder its implementation. The data underscores the need for professional development programs, infrastructural support, and policy-level changes to facilitate the integration of game-based teaching strategies in secondary education.

Conclusion

Game-based pedagogy has the potential to revolutionize conventional teaching techniques by enhancing student engagement and interaction. Although there are obstacles, the readiness of educators to embrace this strategy portends a bright future. Game-based learning has the potential to become a crucial component of secondary education with the right guidance, materials, and legislative backing, ultimately increasing student engagement and academic achievement. The study's practical ramifications highlight how urgent action is required to support game-based learning in secondary education. Expanding teacher training programs would give educators the skills they need to include digital games into their lesson plans.

Schools should increase access to technology and digital resources while making sure that implementation is not hampered by infrastructural constraints. Policymakers can also update curriculum frameworks to give more latitude in implementing game-based learning strategies. Institutional and administrative support is also essential since teachers require resources, policy support, and encouragement to try out new teaching strategies. Game-based pedagogy can evolve from an experimental technique to a commonly used teaching method that improves student learning by taking care of these pragmatic issues.

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