

Virtual Social Game Experience: The Definitions and Determining Factors

Dian Prianka, Christabel Parung, Viviany

Faculty of Creative Industries

University of Surabaya

Surabaya, Indonesia

dianprianka@staff.ubaya.ac.id, christabelannora@staff.ubaya.ac.id,

viviany@staff.ubaya.ac.id

Abstract

Pandemic pushed the creative businesses to innovate to survive. Virtual Social Game Experience is a result of product reengineering pivoting from a traditional tabletop board game to a social distanced gaming experience. As a host oriented game, VSGE is characterized with a high level of social interaction between players in the game and highly utilize the existing features of the communication platform. The definition of VSGE also supported by comparisons between VSGE and its predecessor games such as traditional tabletop game and online tabletop game. It is found that VSGE has a similar topology characteristic with its predecessors, however its gameplay may distinct VSGE as it relies on the host's role and its social interactivity between players.

Keywords

Virtual, Social , Game, Interactivity

1. Introduction

Worldwide pandemic forced millions of businesses that relied heavily in human presence to pivot - or even worse - end their business. Tons of entertainment businesses are forced to innovate to be able to survive, which is consistent with Bourletidis & Triantafyllopoulos in 2014, that enterprises have the willingness to fight and overcome the crisis with a diverse strategy, from product reengineering, to price fixing. Virtual Social Game Experience (VSGE) was the result of product reengineering that was born due to the pressure of pandemic. TableToys, a local board game library from Surabaya, Indonesia, had to pivot their business model due to the social distancing protocol that has caused them a considerable drop in visitors. By utilizing Microsoft PowerPoint and Zoom as communication platforms, TableToys designed a whole new gaming experience while preserving the social interaction between players and thus, VSGE was born.

The main characteristic of VSGE is the high level of social interaction between players in the game as if there are no virtual barriers amongst them. More precisely, VSGE games highly utilize the existing features on the communication platform (Zoom / Discord) and other existing visual platforms (Microsoft Powerpoint, etc) as it is actually the so-called playground. In short, instead of creating a unique platform to play games, VSGE utilized the existing products to play, as it is not a barrier but the game instead. VSGE will let players disregard the virtual barriers, engage more and interact freely.

Most online board games are merely tangible tabletop board games that are transformed into a digital form, and many elements on the games were lost in translation. In contrast, VSGE games are built from scratch by utilizing the digital platform. Furthermore, VSGE also elicits a high level of social interaction between players by not only a virtual chat but more in verbal and also body movements, which is consistent with a study done by Lindley et al., in 2008 that stated social interaction and engagement are consistent with body movements in game play. However, this game genre is still considered new in gaming society, hence, there is no exact definition of VSGE to better explain its unique characteristics and how it is differed to the online board games. This paper will define the VSGE term and also introduce the VSGE game genre into the gaming and entertainment world. A survey about the experience of the VSGE game first conducted by d'Astous & Gagnon in 2007 also conducted to better explain the VSGE by their appreciation of the game. Moreover, the other types of interactive multiplayer games also need to be brought back to mind

highlighting the distinctive features of VSGE, such as the traditional tabletop board games and digitized tabletop board games.

2. Literature Review

2.1 Tabletop Board Games

Historically, a variety of games have come a long way since 6000+ years ago. From dice to cards, pawns to war games, tabletop games gain more and more audiences each year, with more new games published each year (Engelstein & Shalev, 2019). Not much literature defines tabletop board games as it is already a household term. The closest to a definition of tabletop board games was made by Rosell at agogeacademy.com (Rosell, n.d.):

“Tabletop game is any game that is typically played on a flat surface, primarily a table. Board games, dice games, role-playing games, pencil and paper games, card games, and tile-laying games are some examples. There is no standard number of players, difficulty to play or game style to tabletop games.”

In short, tabletop board games may vary in genre and difficulty, but one thing for sure, tabletop board games mostly didn't require the players to get up, or move and run around. There are no certain standards in designing tabletop board games, it could be extremely simple and it could be complex. Most tabletop board games don't require much players, as it is usually limited by the size of a table. Tabletop board games may vary in some categories, divided in gameplay, goal of the game, and the main theme. Quite a number of board games are seen to rely on player's luck over skill, such as Snakes & Ladders, Monopoly and Yahtzee, while in contrast, Chess, Checkers and Scrabble were voted as games of skill (Sanders, 2020). Numerous games were designed with rich mechanisms and rules while providing various challenges (Gaina et al., 2020).

2.2 Digitized Tabletop Board Games

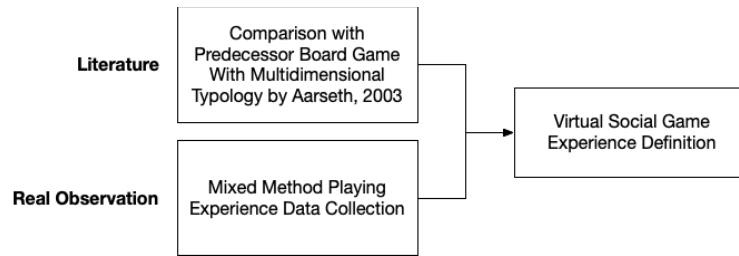
In accordance with the vast technological development, physical tabletop board games must also adapt to digital versions. Digitized tabletop board games enable remote players to play together in one virtual room. The digitized tabletop board games could be: (1) a work of traditional physical board game that translated into digital version such as online Ludo, online Monopoly, (2) a video game that emulated the principles of board games, such as Mario Party on Nintendo Switch, (3) digitized collectible card game, such as Magic the Gatherings (Nutt, 2013), and lastly (4) a virtual tabletops platforms, which is similar to a translation of physical board game into a digital version, but also allow users to create and modify board games in the platform (Desatoff, 2018). Tabletop Simulator and Tabletopia are currently the most popular platforms to create and play digital board games, with a vast and growing number of new board games created by users.

2.3 A Multidimensional Typology of Games

This multidimensional typology was proposed by Aarseth et al., in 2003. The dimensional categories were gathered by taking two similar games and contrast them in a principal way. Afterwards, the extracted principle applied to other games and if the other games do not fit the category, another principle is introduced. The process then repeated until a list of categories and values developed into a group of typologies. Moreover, Aarseth et al., (2003) defined a specific multidimensional typology for all games based on spatial movement, from physical sports, board games and computer games. Furthermore, the fifteen dimensions are grouped under five headings: Space, Time, Player-structure, Control and Rules. As a game, it is essential for VSGE to be further interpreted with Aarseth's multidimensional typology, along with its predecessor board games practices.

3. Methods

A mixed method between qualitative and quantitative method were utilized to be able to define Virtual Social Game Experience (VSGE) thoroughly. Two predecessor games to VSGE has been already observed and studied, moreover, to gain more informations about VSGE, a combination of qualitative and quantitative method data collection with the VSGE players was conducted. In result, there will be a comparison between the predecessor games and VSGE, with also explanation from the data collection results to finalize the final definition of VSGE.



4. Data Collection

Data collection used in this study is mixed method, first, we compared the two predecessor games to VSGE with Aarseth's Multidimensional Typology and then we proceed with another data collection where we combined qualitative and quantitative methods. Quantitative data collection was done through online questionnaire to gain data related to their experience in playing VSGE game, meanwhile to validate the quantitative data, we did interviews with the participants as well. The number of sample in this study was 28 people, and we used purposive sampling as they had to play the VSGE game first in order to answer the questions in the questionnaire.

5. Results and Discussion

5.1 Online Experiences and Virtual Social Game Experience (VSGE)

Born as a way of business survival, VSGE was created in a quite short amount of time and limited resources. VSGE is a new form of multiplayer online game that puts social interaction between players first within a virtual and universal communication platform, such as Zoom. Born as a way to cope with the pandemic, as an online game, VSGE helped people to stay connected with friends while social distancing. VSGE also helped provide socioemotional benefits, which is consistent with research done in Pokemon Go by (Yang & Liu, 2017) and as many other research about online games already proved that playing online effectively offers a high level of social interactions and experiential benefits (Arbeau et al., 2020). Based on the observation, the main characteristics of VSGE are as follows:

1. Host-oriented
In VSGE, a host is a must. Host can work as a storyteller, moderator, and operator at the same time. In VSGE, the host is crucial to bring social interactivity between players.
2. Universality
Technical specification should not be an issue in playing VSGE. A web browser, a webcam and communication platform are sufficient to be able to play VSGE games. More so, VSGE games should be able to maximize the usage of the universal platform instead of pushing the users to install or enhance another software / device. However, a development of mobile applications is permissible in order to gain more engagement from the players. Mobile applications should be universal, not limited to certain smartphones with certain specifications.
3. High social interactivity and player engagements
Crossing the virtual boundaries, players in VSGE games should be able to interact freely and engage in the game. This corresponds with a research done by Chen & Lei (2006) which stated that a higher degree of social interaction caused higher participation level within players in the game.
4. Creative use of platform
VSGE games should be made by utilizing the features of the communication platform (Zoom), such as the Video Chat, Audio Chat, Text Chat, and also using the Breakout Room, Annotate, and Reactions. To enhance the engagement level, a web based platform can be used to visualize the game and let the players engage more by doing some basic actions such as moving the objects, clicking options, or moving around. Web based platform was chosen because of the universality factor to let more players be able to play.

5.2 Definition Development With Aarseth's Multidimensional Typology

To be able to further develop VSGE, a comparison between VSGE and other board game predecessor conducted using the Aarseth's Multidimensional Typology. A lot of similarities between the VSGE and other board game predecessor in the typology dimensions can be seen. However, VSGE has the distinctive feature that separate it to the other gaming platform. Further explanation on the dimensions will be explained below in table 1.

Table 1. Comparison of Tabletop Board Games, Online Tabletop Board Games, and VSGE based on Aarseth's
Multidimensional Typology

		Tabletop Board Games	Online Tabletop Board Games	VSGE
Space	Perspective	Omnipresent	Omnipresent	Omnipresent/Vagrant
	Topography	Topological	Topological	Topological
	Environment	Static	Static	Static
Time	Pace	Turnbased	Turnbased	Turnbased
	Representation	Arbitrary	Arbitrary	Arbitrary
	Teleology	Finite	Finite	Finite
Player Structure		Multiplayer/Multiteam	Multiplayer/Multiteam	Multiplayer/Multiteam
Control	Mutability	Various (depends on game scenario)	Various (depends on game scenario)	Various (depends on game scenario)
	Savability	Conditional	Conditional	Non-Saving
	Determinism	Non Deterministic	Non Deterministic	Non Deterministic
Rules	Topological rules	Yes	Yes	Yes
	Time based rules	No	No	No
	Objective based rules	Yes	Yes	Yes

Space: Perspective

In VSGE, the visual of the game itself mostly represents the real world that the player sees (vagrant). However, the flexibility of VSGE game genres may also allow the player to examine the entire arena at will (omnipresent). The perspective in VSGE might be fully controlled by the host, or optional for the players. Ergo, vagrant perspective is the fundamental perspective of VSGE, but does not rule out the possibility of the omnipresent perspective.

Space: Topography

The high reliance with a host simply made the game in VSGE to be played topologically: discrete and non overlapping positions to move between. The players' character movement in VSGE is very limited as it is almost obscured in two dimensional visuals.

Space: Environment

VSGE games were made in two-dimensional first-person perspective with no avatars or characters inside the game world to represent the players. Thus, the environment is absolutely static yet still manipulated by players' depends on the game story.

Time: Pace

VSGE is turn based, as the players inside the game arena will take turns to make actions to do challenges in the game. The turn-based mode actually is required due to the usage of the online communication platform to avoid chaos in voice communication.

Time: Representation

In VSGE, time is represented as arbitrary, meaning that any actions in the game did not mimic the real corresponding actions in the real world. The host in VSGE has the ability to speed up or even slow down any effect. For example, in VSGE Escape Room game, the wall cracking sound will be explained with storytelling technique by the host.

Time: Teleology

VSGE games are finite, with clear goals that need to be achieved by a player or a group, and every single game will have a different experience, as the main experience is the multiplayer social experience.

Player Structure: Multiplayer

A limit of 30 players was set by TableToys to maintain the players' engagements during the game. Too many players in the game could've caused an audio problem, as Zoom still hasn't the ability to do spatial audio, in which if more than one player speaks to the audio, the voice will be disrupted. As low as 2 players can start a game, and grouping of players is also possible to create a team-competition mode.

Control: Mutability - Various

VSGE allows a variety of gamestory / gameplay, whether the players with a certain amount of points could have more ability or set of skills unlocked or even a static condition of the player along the game. However, VSGE game is unique, as if the game is finished, all players' statuses might restarted from zero and start a new game, new experience, with a different set of other players.

Control: Savability - Non Saving

Every VSGE game will be a unique game, with a different experience each time the game is played. Players will not have the ability to stop the game and continue the game at another time, as the game will be played in real time with other players via Zoom with host(s).

Control: Determinism - Non Deterministic

It is not possible to predict the VSGE game, as the game has the unique social characteristic, with a high engagement level of the players. Every players' actions will cause a different set of experiences towards the game.

Rules: Topological rules - Yes

The players' position in VSGE most likely will determine the challenge that the players endure. The position itself will be the same for all players, as they shared the exact same virtual environment in the game.

Rules: Time based rules - No

Time won't be the main issue in VSGE as the game will flow in natural terms to maintain the social interactions between players in the game.

Rules: Objective based rules - Yes

Players in VSGE will be challenged with various quizzes, puzzles, or small missions to be able to move on to the next level or next position in VSGE. If all players can't finish the challenge, then the game will not continue, and the host(s) might be able to step in to give extra clues to help the players.

The similarities between VSGE and its predecessor games is not much but may differ in the details. The most unique instrument of VSGE is their social interaction between players and the unique playing experiences. In VSGE, players' social interactions come first, and the games were made accustomed to the communication platform to ensure a universal requirement.

Definition Development from Interview

To be able to clearly define VSGE from the players perspective, a group of players were tested to play the game together and then interviewed. 28 players played together in VSGE game and then asked questions about their experience toward the game. The questions were derived from d'Astous & Gagnon, 2007 that conducted a research

about consumer appreciation toward board game. The scales were as follows: comprehensibility, entertainment, rhythm, unexpectedness, level of control, level of challenge, fantasy stimulation and game appreciation. The data were collected right after playing the game.

Comprehensibility

The players thought that the game was easy to understand, yet the end goal of the game is not always clear. In VSGE, host played a big part of comprehensibility, where the host must explain the game thoroughly. Every game won't have the same experience even with the same title, since it depends on how the host explain the rule of that particular game.

Table 2. Comprehensibility of VSGE Game

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Comprehensibility	The game is easy to understand.		3	25
	I can explain the rules of the game to the other person in a few minutes.	1	4	23
	I think the goal of the game is very clear.	1	3	24
	The end goal of the game is not always clear.	13	5	10

Table 2 shows the Likert scales questionnaire results of the comprehensibility of the game. Participants tend to answer Somewhat – Strongly Agree (Scale 4 and 5) in terms of understanding the game, the clear instructions of the game, and also the game goals.

Entertainment

All the interviewed subjects agreed that they were entertained by the game, furthermore, all the players were able to interact with each other and have fun together. The high interaction level between players were the key of VSGE game, in which VSGE games need to be able to break virtual boundary so all the players in the room could be highly engaged and entertained.

Table 3. Entertainment Experience of VSGE Game

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Entertainment	This game is very entertaining	1	0	27
	I had a lot of fun playing this game.	2	1	25
	I made a lot of jokes with another players in this game.	4	2	22

Table 3 shows the level of entertainment that was experienced by the players. Most of the participants answered Somewhat – Strongly Agree (Scale 4 and 5) in terms of how entertained, how much fun and how positive the social experience in the game.

Rhythm

As mentioned by Orbanes (2003), the rhythm of the game is important to create a good play ambiance. The interviewed subject's opinion was varied in this section. As the VSGE game still is a virtual online game, it still needs a little improvement to enhance the engagement and interactivity level to fasten the game's rhythm. The players' in VSGE still need to wait for their turn or to be called by the host to answer the puzzle. The number of players in the virtual room also played a part in the game's rhythm. The bigger the number, the least chance that a player dominate the game.

Table 4. Rhythm of the Game

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Rhythm	No time to yawn while playing this game.	6	6	16
	I feel like this game is never ends.	9	4	15
	I feel like there's a lot of free time in this game.	13	7	8

A mixed results shown in Table 3, which in two statements about the lack of enthusiasm and blandness has the most vote in Somewhat – Strongly Agree (Scale 4 and 5). Which was translated to how low the engagement between players and the game. However, in the last statement about the pace of the game, most of the participants chose the Somewhat – Strongly Disagree (Scale 1 and 2) which was translated that the game still have the challenge factor that forced the players to finish the game.

Unexpectedness

Elements of surprise and novelty is also a key important factor in a game (Berlyne, 1960; Duflo, 1997). In VSGE, players could feel several surprises as they got more and more challenges to finish the game. However, the host has a major role in bringing the surprise and the intensity to be able to engage the players and break the virtual wall. At some challenge on the VSGE game, host could also work as a judge to determine which players should win the game based on their effort towards the challenge.

Table 5. Unexpectedness Factor in The Game

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Unexpectedness	There is so many repeats in this game.	15	4	9
	I feel like I can't imagine what's next in the game.	1	2	25
	This game is unpredictable.	3	1	24

Table 5 shows that most participants agreed that the game has the high unexpectedness level, which was proven by the high number of participants that disagreed (in Somewhat – Strongly Disagree, scale 1 and 2) with how many repeats in the game. Also, the participants also tend to answer Somewhat – Strongly Agree (Scale 4 and 5) in how they can't imagine what's next in the game and how unpredictable the game is to them.

Level of Control

In terms of control, as VSGE is highly dependent to the host, player's control towards the game is relatively low. As described before, VSGE is a turn based game, so the possibility to win is higher towards the player with more opportunity. Yet, there is still a need to improve the player's control in terms on technology, whereas now VSGE only can be played virtually via Microsoft Powerpoint and players has a very low control on the visual assets. The host is the only one who's capable of controlling the game visual assets, while players can only interact via Annotate feature on Zoom.

Table 6. The Level of Control in the Game

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Level of Control	There is a good part of chance in this game.	4	4	20
	I would say that this game depends more on chance than on the players' decisions.	9	4	15
	It is difficult to influence the issue of this game because there is too much place left to chance factors.	9	4	15

As seen on Table 6, most of the participants answered Somewhat-Strongly Agree (Scale 4 and 5) in the three statements about the Level of Control in the game, which was supported the conclusion of how the disparity happened in the game, which need to be improved later on.

Level of Challenge

In VSGE, level of challenge may vary to the players' skill in solving puzzle, but can also supported by teamwork. VSGE games will break the virtual limitations, as the game will challenge the players to work together remotely to finish the challenge, even though they might not know each other at the first place. The interviewee answers in this subject were also vary, depends on the each player experience on puzzle games. Furthermore, technical challenge could also increase the level of challenge of the game, where VSGE rely heavily with the internet connection.

Table 7. The Level of Challenge in the Game

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Level of Challenge	It is a difficult game.	5	8	15
	It is a demanding game.	9	4	15
	It is a complicated game.	10	7	11
	It is an easy game.	9	6	16

In Table 7, most of the participants answered Somewhat-Strongly Agree (Scale 4 and 5) in the statements about the difficulty level of the game, which shown that the game was particularly easy for the players. However, on the other hand the participants also chose the Somewhat-Strongly Agree (Scale 4 and 5) options on the second statement

about the level of demand in the game. On the third statement about the complexity of the game, the participants tend to split into two groups, the Somewhat – Strongly Disagree (Scale 1 and 2) with 10 participants and Somewhat-Strongly Agree (Scale 4 and 5) with 11 participants. Furthermore, 16 participants chose Somewhat-Strongly Agree (Scale 4 and 5) in the statement about the easiness of the game.

Fantasy Stimulation

In VSGE, host will bring the players into the whole new world by telling the story of the game and the challenges they must finish. VSGE games utilized visual quality and the host’ storytelling ability to bring the players into the fantasy of the games’ story. In the interview, the interviewee mostly agree that the game was able to make them feel like inside the story of the game, based on the support of the visual and the host story telling technique. However, the immenseness of the VSGE game still needs to be improved with utilizing all the five human senses.

Table 8. Fantasy Stimulation of the Game

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Fantasy Stimulation	When I play this game, I am totally focused.	1	6	21
	To play this game is like escaping from everything.	4	2	22
	When I play this game, I feel like I’m in another world.	5	4	19
	When I play this game, I may become so involved that I forget everything.	5	7	16

In Table 8, most of the participants tend to answer Somewhat-Strongly Agree (Scale 4 and 5) in all statements which support how the game stimulate fantasy to the players, in terms of how focused they were in the game, escapism, and involvement.

Game Appreciation

In this scale, the interviewee was asked their overall experience after playing the game. Most of the players were all satisfied with the game and willing to recommend the game to their peers. Meanwhile, the playing experience of VSGE will not be 100% the same if played with another players.

Table 9. Game Appreciation

Variable	Items	Somewhat – Strongly Disagree	Neutral	Somewhat – Strongly Agree
Game Appreciation	Among all board games, this is definitely my Favorite.	6	10	12
	If I had to go on a desert island with a group of	4	2	22

	friends, I would bring with me this board game.			
	If I were to recommend a single board game to a friend, this is the one I would choose.	3	2	23
	If I had invented a board game, I would like that it be this one.	6	2	20
	If I had to rate this board game, I would give it a score of 11 out of ten.	3	3	22
	I love this board game.	2	4	22
	This board game pleases me more than any other game.			

Table 9 shows the level of appreciation of the participants toward the game. Most of the participants tend to answer Somewhat-Strongly Agree (Scale 4 and 5) in all statements about how they favor the game, how they will replay and recommend the game, and how they feel about the game.

6. Conclusion

Based on the defined characteristics of VSGE and the comparison between VSGE with its predecessors such as Traditional and Online Table Top Boardgame and the interview results, VSGE can be thoroughly defined as a multiplayer social game with a high interactivity between players, in which players need to be fully engaged to the game. VSGE also a host-oriented game, it cannot play by themselves. VSGE is also universal, it is not necessary to use such high spec console or computer to play the game. In terms of gaming topology, the differentiation between VSGE and its predecessor is not much, but in each topology, VSGE has its unique approach to enhance the social interaction between players, such as in the Space topology, VSGE might be omnipresent and vagrant depends to the game, but its host oriented feature may distinct VSGE with the predecessors as the host has its special role to control and guide the game. However, for a better playing experience, VSGE require a universal-easy to access web app to support the visual components of the game.

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Biography

Dian Prianka, is currently working as a lecturer in Faculty of Creative Industry, University of Surabaya. Graduated from Fu Jen Catholic University, Taipei, Taiwan, Master of Arts. Her research topics focused towards creative business, digital marketing, product development and innovations.

Christabel Parung is a lecturer in Faculty of Creative Industries, University of Surabaya, Indonesia. She earned her B.Eng. in Architecture at Brawijaya University and continued her master study in Fashion and Textile Management at Heriot-Watt University, Scotland. She has taught courses in branding, management, and textile for fashion design, and her research is focused on textile pattern, upcycling, and consumer behaviour.

Viviany is currently working as a lecturer in Faculty of Creative Industry of Surabaya. Graduated from University of Surabaya, in Fashion and Lifestyle Product Design, her research is focused on pattern-making, sewing techniques, design research.