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Research paper

The Virtual Reality Experience and Leisure Experience of Screen Horse Riding Participants: from the 'Simulation' point of view by Boudrillard

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Abstract

This study aims to gain depth understanding of the virtual reality experience experienced by screen riding, to analyze in depth and interpret from the perspective of Boudrillard through a subjective and subjective perspective of leisure users. In this study, after learning about the experience of virtual reality symbols built into them through screen riding, the leisure experience of screen riding participants was further identified. The double-checking results are as follows. First, experience in the virtual reality of screen riding can be described as a fusion of virtual reality symbols and experiences. The virtual reality symbols inherent in screen riding are expressed as spatial symbols, behavioral symbols, and contents, and the fusion of experience means a transcendental and a transformative environment. Second, screen riding was a derivative of the study that enabled participants to enter horseback riding more easily and to continue with leisure activities, also to help with posture correction, constipation, diet, and Kegel exercise. thereby enhancing fun and desire for horseback riding. In the study, participants were focusing on subjective feelings arising from the experience of horseback riding, and they stated that the body's sensory stimuli increased the quality of life and felt happy. In this study, the leisure activities are satisfied with the simulacra which can replace reality according to the subjective viewpoint of the leisure experiencer and the reflection of personal circumstances in the virtual reality of screen riding sports which is IT fusion. In the future, It is necessary to study the consumption patterns and the popularity of the emerging virtual reality sports since various virtual reality sports are becoming popular and are being built into the culture of life.

Keywords: *Boudrillard, Leisure experience, Screen riding, Simulation, Virtual reality.*

1. Introduction

With the recent advent of IT convergence in sports, people in modern times are seeing more leisure activities in virtual reality. Various hardware and software have been developed, and as its potential expands, interest in leisure industry and academia is increasing. In virtual reality, sports develop artificial environment that is not real by computer and experience similar experience to real world sports, thus experiencing similar level of exercise load to reality.

Therefore, the virtual reality, called screen riding, goes beyond just virtual space, it is a fusion sport with IT that works directly with the senses of research participants and allows them to experience space and time in real life. The biggest advantage is that horseback riding, a leisure sport that can only be played in nature, can be done without being controlled by time and space.

Boudrillard(1996) described modern society as a postmodern era and explained the production, consumption and experience of virtual reality.

He said the symbol replaces things and the relationship between imitation and life trying to recreate things has become blurred, experiencing a new culture of 'simulation' that is more realistic than the reality.

These virtual reality technologies are being developed in various fields such as sports, education, and national defense(J.H. Min, 2016).

These days, as the number of virtual reality sports has increased, various studies are being conducted both at home and abroad.

Overseas, sports training in virtual reality(Tripcchio, 2012; Wang, & Wu, 2014 etc), sports games (Harmsen, 2010; Zyda, 2005 etc.), sports analysis(Bideau, Kulpa, Vignais, Brault, Multon & Craig, 2010; Levy & Katz, 2007; Qingge, 2003 etc) were conducted. In Korea, there have been studies on virtual reality experiences (Han & Kim, 2011; Kim, Lim & Lee, 2011; Yun, Jung & Lee, 2012, etc.), environmental changes(Jeon, Kim & Lim, 2013; Yi, 2009; Sul, Park & Kim, 2011, etc.), motivation and sports industry(Kim, 2012; Lee, 2018, etc.).

Most of the preceding studies have been conducted with a variety of approaches to screen golf, and there is no study of screen riding. Therefore, this research is aimed at analyzing and interpreting in-depth the experience of virtual reality experienced in screen riding from Boudrillard's point of view through the subjective and subjective perspective of leisure experienceers.

In other words, from Boudrillard's point of view, simulation can be understood as an image in which the copied image was made to replace the real thing, controlling and replacing the original.

After exploring the experience of virtual reality symbols embedded in the screen riding in the concept system of simulacra that made it seem to exist, the leisure experience of screen riding participants was further identified.
To achieve the above research objectives, research issues are as follows.
1. To understand the experience of the sign of virtual reality in screen horse riding.
2. To analyze the leisure experience of virtual reality participants.

2. Method

In this study, from the perspective of Boudrillard's simulation, I conducted a case study among intellectual traditions from qualitative study to analyze virtual reality experience and leisure experience of screen horse riding. Qualitative research is a useful way to understand and analyze their value systems, belief systems and rules of conduct systematically and in depth by understanding behaviors and meanings in social situations.

2.1. Research participants

The researcher selected eight key members who regularly participate in the Gyeongju-Si D-Screen horseback riding hall as study participants, using the quality study's useful and objective labeling method. The reason why I selected them as study participants is that they are able to form a rapport, it was judged that the screen horseback riding characteristics and related information will be provided sufficiently by continuously exercising the screen horseback riding exercise for more than one hour and two hours a week for at least a year. These personal characteristics are shown in Table1.

Table 1: Personal Character Study a Participant

NO	Name	Age	Screens horseback riding Career(year)	Number of uses (Week)	Once use time (time)	Racing (Ranking)
1	Park WS	43	2	6	2	3
2	Kim FG	58	1	3	1	9
3	Park SD	53	2	3	1	2
4	Choi AR	50	2	4	2	5
5	Lim WJ	49	1	3	1	15
6	Lee MJ	44	1	6	1	1
7	Lee UY	47	2	5	2	10
8	Hwang S	45	1	6	2	8
※ Name of participants in study using alias.						

2.2. Data collection

In this study, I collected data and information using participating observations, in-depth interviews, and related documents. First, I participated in the regular meeting from an internal point of view to analyze virtual reality experience and leisure experience felt by screen riding participants more objectively. I divided the participating observations into two stages and recorded their activities and meeting details in the field notes. Second, after forming a rapport with the study participants, I conducted in-depth interviews in the form of face to face. The interviews were recorded and recorded after obtaining consent from the participants. The interviews were conducted with a mixture of hemispherical and unstructured interviews. The interview period was held from 12 March 2018 to 12 June 2018. I conducted the interview once or twice for each individual, and the interview took about 60 minutes. Third, I used papers, books, internet articles, and newspaper articles related to the data collection as supplementary materials for my research. The basic interview scope and details are shown in Table2.

Table 2: Basic interview scope and content

interview scope	content
Personal Property	Age, Job, Screen Riding Career, Using Times Per Week, Satisfied Feeling, Motive of Participating
Screen Riding Utilty	Screen Riding User, Hours of Using the Screen Riding
Experinces of the Sign Included in the Screen Riding	Realistic and Non-realistic Element of Screen Riding, New Experience of Screen Riding, Difference of Riding and Screen Riding
Participants Leisure experience of Virtual Reality	Funny, as a Leisure activity, Sedation and attretion, New Virtual Reality experience of the Leisure space

2.3. Data Analysis

In this study, I analyzed the text on the data obtained through participation observations, in-depth interviews, and supporting materials. The process is as follows. First, prior to data collection, a systematic record was recorded on the computer to analyze the work step and all data collected in recent years. Second, it is about the encoding and application phase of each subject. I have read the collected data and have given them a topical term that implies the meaning of the content of a particular text. Third, the analytical process is a step in the creation of themes and meanings. I have created a category and a meaning that will give a comprehensive overview of the content of the collected data.

2.4. The truth of the data

In order to enhance the integrity of the colletd data and analysis process, I conducted a trangulational verification method, peerdebiefing, progressive subjectivity, and thick description.

2.5. The ethics of research

I, as a researcher, conducted the study with the consent of the participants after he accurately informed them of their study objectives and revealed how the findings would be used.

3. Experience in the Virtual Reality of Screen Riding

3.1. The sign of the Virtual Reality

Boudrillard explains the experience, production and consumption of the virtual reality through the conception of simulation. with his perception of post modernism in our modern society. that is it makes the participant experience the virtual reality through the sign. In semiotics, images are symbolic actions of symbols, and signification (meanings) are formed from perceptual actions. Signifiant is the outer image in which the entity is visible, and signifi is the inner image that the mind feels. Virtual reality is a newly created reality because the boundaries between reality and signs(images) are blurred. Virtual reality is shared reality through virtual reality symbol(Kim, Lim & Lee, 2011). From this point of view, I would like to take a look at the experience of virtual reality symbols embedded in screen riding.

3.1.1. Spacial sign: Created space

Screen riding is a sport in which people ride horses while watching images that are identical to the actual environment on screen by coded computer programs. A variety of situations, such as the ones we can think of, are developed to create a new environment where we can operate in the space through the images of real things without having to go to the actual environment. The environment of the virtual reality in screen riding feels like reality through the internal wave which removes the difference of the signifiant and signifi through the sign.

Since everyone's on-screen riding course program is a fact, it's good to have a horse ride and feel the natural scenery in the place without spending a lot of time and money to get to the actual place. Also, it really seems the same(Park, 53).

If you see the tile houses, flowers, and trees, you should avoid them while riding a horse, but when you touch the branches in which it blooms, the running horse never stops. Also, you can really feel the chills. I purposely find these environments and run on horseback. It's not a virtual reality but it's really like I'm riding my horse to Andong Hahoi Village(Andong traditional village). It's like riding a horse as I smell the flowers(Lee MJ, 44).

As the study participants stated, the screen riding field projects the real situation and provides a space for objects to be synthesized and acted directly as if they existed in the original environment. In other words, He argued that by the symbolism system, the difference between signage and signifi was blurred, creating a new space for virtual reality.

3.1.2. Actual sign: Magic spell of special skill

Screen riding is a game running on the horse, which makes the participants excercise as if he is riding in reality. When riding a real-model robot, the hips move up and down. Special equipment, which helps supply oxygen and circulate the body, has been developed to make movements similar to actual words. These behavioral experiences can produce virtual reality symbols. Therefore, the behavioral symbol of a screen horseback riding, which represents a realistic environment, moves in a virtual space but feels like it moves in real life.

It's really doing it because the horse's saddle is moving on the screen. Running on a horse gives a much greater impression of its effect. I jumped over the obstacle for fun, but the saddle moved and I was surprised(Hwang S, 45).

I went around the ancient castle and went around the Bomun complex(lake resort), and after the ride I got better. I was amazed at the effect that when riding a horse, the saddle moved and strengthened the waist and abdomen forces by exerting forces at the center of the belly button(Lim WJ, 49).

According to the study participants' statements, they ride horses towards images on the screen. The reality that he is riding to world the virtual screen is imaginated by the sign and then the user acts in the space connected with screen. The looks of shooting the goal are image, the bullet flying to the goal in the screen is signifiant, the movement of the bullet in the screen is signifi. As a result, the user acts a new action like magic in the virtual reality.

3.1.3. Contental sign: 3DR Mechanism

The user experiences riding alone for 20 or 10 minutes, rasing for 5 minutes course, hunting for 10 minutes course. He can change the direction by pulling a bridle and conducts speed, jump and, running skill by controlling computer program. In other words, the top-horse system of the screen riding field implements the movement of the horse's saddle to fry a person's butt as closely as possible, depending on the terrain running with a super-precision motor of 3DR(3Dimension Rhythm). The rider in the screen feels like riding in real riding court.

You can feel really excited when you run and jump at an ancient castle with a screen horse. The course is surrounded by ancient castles, and there are trees, rocks, and mountains around the border of the castle. If you ride back, there's a mountain up there, up to the top of the mountain, and then pull down the reins as you go down the ridge, you'll feel like you're riding a roller coaster (Park WS, 43).

You can jump on a horse, shoot a gun, and try a game. You'll have so much fun with the skill of zigzagging a horse at a fast pace. It will be fun if you steer and pull the reins. This is a riding skill I've created, and it's so interesting(Choi AR, 50).

The study participants found that 3DR mechanism technology actually honed riding skills in the same way as riding a horse. Although it is a small-space screen riding, technologies such as actual riding have been developed to make people feel realistic. The looks that the reward is applied in the screen through the rule is image. The reward is signifiant, The meaning of the application of the rule is signifi. Therefore, I think that the feeling that I am compensated through the meaning of the virtual reality symbol and the improvement of riding skills in the real world is ambiguous and the same as the reality.

3.2. Convergence of Experience: Transcendental experience of deformed environment

Virtual Reality Sports is a sports that responds to the user's movements under calculated sports load. It is a sports that combines various multimedia element technologies that implement virtual reality environment and motion platform hardware and control technologies that enable sense of immersion(Han DY, & Kim DK, 2011). Screen riding is a sport in which you move your avatar by computer program in virtual reality and perform a given mission. As such, the screen horseback riding is reconstructed into a modified environment as virtual reality symbols are used in the same way as reality and virtual reality.

The oxygen capsules fill my body with oxygen and generate life energy with healing after a screen riding. Especially, when it rains, it is best to ride a horse indoors as it can play games and polish technology through a real screen in a pleasant environment, and oxygen is sufficient(Park SD, 53).

I was afraid of riding on a horse and getting hurt in the back, and before and after that, the screen horseback riding disassembled the blood in my blood with the wavelength of a sonic oscillator and released my blocked blood and muscle, so I'm healthy now. Screen horseback riding is very good because it is good to sit still and keep your balance (Lee UY, 47).

The above statement shows that participants are adapting to virtual reality sports through various experiences in a modified environment. As such, screen riding can be experienced in a modified environment beyond sports experience as 3DR mechanism technology, infrared sensors, sound waves sensors and oxygen capsules are reflected on virtual reality screens. Due to the convergence of technologies, virtual reality sports are also being transformed into an environment where indirect sports experienceers can experience them directly. Kim BM, etc(2011) also argued that virtual reality sports can complement and coordinate real-life experiences by experiencing them in a modified environment. Therefore, the virtual reality symbol of a screen horseback riding provides a diverse environment for existing reality and creates an experience that transcends the changing environment based on reality.

4. Leisure experience for screen horse riders

In fact, horseback riding is a unique and special aristocratic sport in a sense. Recognizing these sports, screen riding contestants continued their leisure activities by entering the screen horseback riding with the advantage of easier riding indoors. They said that they enjoy leisure activities with posture correction and diet as they act as a derivative to satisfy curiosity and desire for horseback riding with the same sympathy.
In fact, horseback riding is a special exercise and it is difficult to access. It started because it was easy to do indoors, and also it is a

leisure activity because it helps to adjust posture and maintain body shape (Hwang S, 45).

I thought horseback riding was only accessible to people from the upper class, but I searched the Internet and found that it helped me relieve stress and lose weight(Kim FG, 58).

As Boudrillard pointed out as a simulacra, he acted as a medium of emotional stimulus to reality while understanding screen riding, interacting with horseback riding objects in virtual reality, enjoying, and feeling stress relief, fun, curiosity, etc. In a situation where a more pretentious simulacra is preferred than the real one, the artificial resurrection of the non-existent entity and the resurrection of the real one is sometimes applied to give the simulacra its realism(Ha TH, 2001). In the order of simulacra, participants said they felt visual, auditory, and physical stimuli in the screen riding process, but Yoon HH, etc(2012) said the results came out.

I'm thrilled to see flowers and hear gunshots when I ride up the hill. I feel like I'm riding up a horse on a real road, not a virtual reality, and I feel like I'm falling down on a downward path. When I'm on a horseback, I feel like I'm going up and running through rough terrain(Lim WJ,49).

I feel comfortable and happy when I go to the paths or woods alone. I am happy that the surrounding image cleans my eyeball, which makes me feel mentally stable and the sound of running a horse alive. To keep this feeling going, I drink coffee and talk with my friend(Park WS, 43).

In the study, participants were focusing on subjective feelings arising from the experience of horseback riding, and they stated that the body's sensory stimuli increased the quality of life and felt happy. Also, I experienced interactions that reduce stress and form intimacy through conversations of colleagues or advice of leaders while doing leisure activities. In virtual reality, interaction with the object of screen riding occurs in the form of user's involvement and immersion (Yoon HH, Jung CY & Lee H. 2012).
Because virtual reality environment and space that are based on technology of screen horseback riding are not perceived as simple images, it is possible to interact with objects called screen horse riding. As a result, I felt interest, sense of achievement, excitement, mental stability, immersion, fun, healing and happiness.

5. Abstract and Proposal

In this study, we studied and looked at the virtual reality symbol experience and the leisure experience built into the virtual reality sports from Boudrillard's point of view of simulation. through a screen horseback riding that can be easily experienced in everyday life.
First, experience can be described by combining virtual reality symbols and experiences in virtual reality on screen horseback.
The virtual reality symbol embedded in a screen riding is expressed as spatial symbol (creative space), behavioral symbol (special magic skill), and content symbol (3DR mechanism) and experience convergence refers to a transformative environment.
Second, the screen horseback riding act served as a derivative to satisfy the fun and desire for horseback riding by allowing participants to enter the horseback riding more easily and continue with leisure activities to help with postures, constipation, diet and Kegel exercise.
The participants said they valued subjective feelings during the horseback riding experience, and stated that stimuli transmitted through the body's senses increased quality of life and felt happy.
In this study, the leisure activities are satisfied with the simulacra which can replace reality according to the subjective viewpoint of the leisure experience and the reflection of personal circumstances in the virtual reality of screen riding sports which is IT fusion. Finally, it is necessary to study the consumption patterns and the popularity of the emerging virtual reality sports since various virtual reality sports are becoming popular and are being built into the culture of life.

References

[1] Bae JA, & Kim SI (2015), Proposal of Fitness Service based on Virtual Reality Game and u-Healthcare for Improving Leisure Satisfaction, *Journal of Digital Design*, 15(1), 133-144.
[2] Bae YD, *Baudrillard and Simulasion*, Seoul: Sallim, (2005),1-244.
[3] Baudrillard J, *Simulacra and Simulation*, The University of Michigan, (1996).
[4] Bideau B, Kulpa R, Vignais N, Brault S, Multon F, & Craig C, (2010), Using virtual reality to analyze sports performance *IEEE Computer Graphics and Applications*,30(2),14-21.
[5] Han DY, & Kim DK (2011), Changes in Sports Environment Viewed by J. Baudrillard's Simulacre Concept. *Pilosophy of Movement: Journal of Korean Philosophic Society for Sport and Dance*, 19(3), 93-108.
[6] Harmsen L (2010), Virtual Space in Computer Games. *Research Master Media and Performance Studies, Utrecht University*, 1-108.
[7] Jeon WJ, Kim KO, & Lim SW (2013), The Meanings of Participation and Acceptance Factors of Screen Golf in Adults in their 30`s: Based on the diffusion of innovation, *Korean journal of physical education*, 52(5), 573-586.
[8] Kim BM, Lim SW, & Lee HG (2011), Reality Dominating Process of Virtual Reality Symbol with in Screen Golf. *The Korea Sports Society Journal*, 24(3), 137-158.
[9] Lim JM, & Lim SW (2014), Study on Relations Among Water Leisure Sports Participants` Leisure Motivation, Leisure Flow, Leisure Satisfaction and Psychological Well-being. *The Korean Journal of physical education*, 53(6), 417-429.
[10] Lim JM, Kang SH, & Kim S, *A life Sport* , Book Publishing : Glat, Gyeongbuk , (2015).
[11] Lim JM, & Choi JJ, *Modern life and Sports*, Book Publishing : Glat, Gyeongbuk , (2016).
[12] Lincoln Y, & Guba E, *Naturalistic inquiry*, Beverly Hill. CA: sage, (1985).
[13] Spradley, P., *Participant Observation*, New York: Holt, Rinehart and Winston, (1980). [J.Y. Sin., *Participation observation*, Seoul: Sigma Press, (2006)].
[14] Sul MS, Park DY, & Kim JW (2011), Development and Verification of Criteria for Measuring Motivation for Participation of Screen Golf Users, *Journal of Sport and Leisure Studies*, 46(1), 361-375.
[15] Tripcchio, P (2012), Virtual Reality Sports Training. *In Intelligent Environments*, 370-381.
[16] Wang B, & Wu ZZ (2014), Research on Application of Computer Virtual Reality Technology in Sports Training, *Advanced Materials Research*, 926-930(3), 2694-2697.
[17] Yi ES (2009), Exercise Motivations of the Participated in Screen Golf -Involvement, Fun, and presence Factors. *Journal of leisure and recreation studies*, 33(2), 73-83.
[18] Yoon HH, Jung CY, & Lee H (2012), Analysis of the Leisure Experience in the Virtual Reality: A Study on Screen Golf. *Tourism Research*, 36(6), 79-108.
[19] Zyda, M (2005), From Visual Simulation to Virtual Reality to Games, *Published by the IEEE Computer Society*, 38(9), 25-33.