I am neither Clark Kent nor Superman: A Case Study of Experience in Virtual Activity in the Metaverse*

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ORIGINAL ARTICLE

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Abstract

The metaverse has gained attention as an important aspect of virtual word, but little is known about user experiences. This study aims to determine university students' experiences, thoughts, and feelings regarding the metaverse event experience from a virtual reality perspective. A qualitative research method including in-depth interview was utilized to collect data from 34 university students, using purposive sampling method. The interviews were applied after the participants experienced the Roller Coaster metaverse game, which lasted for about 5 minutes. In the qualitative research conducted to explore the participants' experiences with the Roller Coaster metaverse activity, six main themes emerged: Superman, Pleasure Journey, Fearless Coward, Flow, Emotion Zone, and Fear of Missing Out (FoMO). As a result, it was concluded that the students thoroughly enjoyed this experience. Moreover, they couldn't believe how quickly time passed, that this experience was a step toward overcoming their fears. They also added that the experience transitioned them to different worlds and emotions. Additionally, they had FoMO when someone else had this experience before them. Finally, it was revealed that they experienced the feeling of freedom by removing all real-world restrictions. This study might enable to the advancement of virtual reality environments, Metaverse, and leisure-based activities in particular and may reveal many potential research opportunities.

Keywords: Metaverse, Virtual Reality, Activity Experience, Leisure.

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Ne Clark Kentim Ne Süpermenim: Sanal Gerçeklik Perspektifinden Metaverse Etkinlik Deneyimi Üzerine Bir Çalışma

Öz

Günümüzde metaverse, sanal gerçeklik/artırılmış gerçeklik gibi teknolojilerin gelişmesiyle dünyanın dört bir yanından büyük ilgi görmektedir. Eğlence sektöründe de önemli bir yere sahip olan metaverse, fiziksel gerçekliği dijital sanallıkla birleştiren sürekli ve kalıcı çok kullanıcılı bir ortam olan gerçeklik sonrası evren olarak ifade edilmektedir. Bu çalışmanın amacı, üniversite öğrencilerinin sanal gerçeklik perspektifinden metaverse etkinlik deneyimine ilişkin deneyimlerini, düşüncelerini ve etkinlik sırasında yaşadıkları duyguları belirlemeye yöneliktir. Bu amaç doğrultusunda, Muş Alparslan Üniversitesi Spor Bilimleri Fakültesinde lisans öğrenimi gören 34 öğrenci araştırmaya dahil edilmiştir. Araştırma katılımcılarının seçiminde amaçlı örnekleme yöntemi kullanılmıştır. Katılımcılara yaklaşık 5 dakika süren Roller Coaster metaverse videosu izlettirildikten sonra derinlemesine görüşme tekniği kullanılmıştır. Katılımcıların Roller Coaster metaverse etkinliğine yönelik deneyimlerini keşfetmek için yapılan nitel araştırmada Süpermen, haz yolculuğu, korkusuz korkak, akış, duygu kuşağı ve FoMO olmak üzere altı ana tema ortaya çıkmıştır. Sonuç olarak, öğrencilerin bu deneyimden oldukça haz aldıkları ve bu sırada zamanın nasıl geçtiğini anlayamadıkları, korkularının üstesinden gelme aşamasında bu deneyimin bir basamak olduğu, yaşadıkları deneyim sayesinde farklı dünyalara ve duygulara geçiş yaptıkları, bu deneyimi yaşayan kişilerden eksik kalma korkularının olduğu ve gerçek dünyadaki tüm kısıtlamalardan uzaklaşarak özgür olma hissini yaşadıkları ortaya çıkmıştır.

Anahtar kelimeler: Metaverse, Sanal Gerçeklik, Etkinlik Deneyimi, Boş Zaman.

Introduction

Today, with the ever-evolving technology, individuals have started to use new technological activities thanks to virtual reality (VR), augmented reality (AR), or Metaverse Infrastructure, as well as traditional activities to evaluate their leisure time. With virtual reality technology, participants can easily access the places they want to go or various activities they want to experience without wasting time and money. For example, thanks to this new technology, they can spend their leisure time by providing access to a museum, a historical site, or a theme park they want to visit, all without spending money or time.

People may be unable to do what they want because of their physical limitations and not find time due to their workload. In addition, due to various reasons such as not being able to find the opportunity of trial and error during the execution of a job, the high costs, etc., they may not be able to be in the environments they want to be in (Kaleci et al., 2017). Thanks to the ever-evolving and changing technology, the Metaverse attracts great attention. While changing a realistic society with more direct physical interactions, Metaverse allows every individual to participate in metaverse events, regardless of concepts such as race, gender, and even disability. It can be argued that this situation will be very beneficial for society (Duan et al., 2021).

It can be said that one of the reasons why individuals participate in new generation technological activities such as virtual reality or metaverse is sensation seeking. As Zuckerman (1994) states in his sensation seeking theory (SST), individuals seeking different emotions tend to turn to extraordinary activities and experiences rather than ordinary daily activities. In addition, it is stated that individuals who seek high emotions prefer more risky activities. In this context, it can be stated that the main reason for individuals to choose various risky activities in virtual environments is sensation seeking.

Today, with the ever-evolving technology, the way people spend their leisure time is also changing. Especially for university students, new generation technological activities are seen as an alternative for leisure time due to course intensities, exam preparations, inadequacy of their economic situation, etc. Participation in leisure activities can benefit and play an important role in the social interaction and, prevention of social isolation for university students (Coleman and Iso-Ahola, 1993). Students who cannot participate in leisure activities due to various reasons can have the opportunity to perform many recreational activities thanks to virtual reality technologies. With virtual reality activities, especially in the entertainment sector, it becomes important to examine the experiences and emotions of individuals, as well as the impact of such new generation activities on individuals. It is thought that the results of this research will create an idea for leisure researchers and recreational

organizations in the entertainment sector, as well as revealing the need to increase leisure-based activities in virtual reality environments. Therefore, this study focuses on the theory of sensation seeking and the aim of the study is to determine university students' experiences, thoughts, and feelings regarding the metaverse event experience from a virtual reality perspective. Furthermore, when the relevant literature is examined, it will be seen that although there are different studies on virtual reality or the Metaverse, there are hardly any studies regarding recreational activities such as Roller Coasters among these studies. Therefore, this study is considered to be important in contributing to the literature.

Literature

Metaverse

Metaverse consists of a two-component compound word, "meta" a Greek prefix that means after or beyond, and "universe," which means universe. Since its inception, the Metaverse has been defined through a wide variety of concepts, such as the meta-universe as a computer-generated universe, life diary, collective space in virtuality, embodied internet/spatial internet, mirror world, an ubiquitous universe, simulation and collaboration space (Lee et al., 2021). The Metaverse is a hypothetical iteration of the internet providing support for decentralized, long-term online 3D virtualized environments where the connections between the financial, virtual, and physical worlds are increasingly interconnected (Hovan George et al., 2021). The Metaverse is a post-reality universe and a multi-user environment that combines physical reality with digital virtuality (Mystakidis, 2022). In other words, the Metaverse is the post-reality universe, a continuous and persistent multi-user environment that combines physical reality with digital virtuality. Metaverse relies on the convergence of technologies that enable multi-sensory interactions with humans, such as virtual environments, digital objects, virtual reality, and augmented reality. Therefore, the Metaverse is a network of immersive environments connected to an interconnected social network on persistent multi-user platforms (Moro-Visconti, 2022). Metaverse offers users immersive experiences in the virtual world with a head-mounted display for augmented reality and virtual reality (Xu et al., 2022).

Metaverse is the next internet generation after the web and mobile network revolutions. People can interact with other people and software applications in a three-dimensional virtual world by acting as digital avatars (Xu et al., 2022). After three major waves of technological innovation centered around personal computers, the internet, and mobile devices, spatial, immersive technologies such as virtual and augmented reality have begun to develop as the fourth wave of computer innovation. This wave is expected to create an ubiquitous computing paradigm in the future, with the potential to

transform education, business, remote work, and entertainment into a new style. This new paradigm is Metaverse (Mystakidis, 2022).

Although the Metaverse concept seems like a new concept in today's world, this concept has actually been around since the 90s. The definition of the Metaverse concept as a large virtual environment first emerged in 1992 in a fictional novel called Snow Crash, authored by Neal Stephenson. Here, Neal Stephenson states that the concept of the Metaverse is a virtual world where users represented by avatars can interact through virtual reality devices (Ondrejka, 2004). Therefore, Metaverse is assumed as the next-generation internet paradigm that allows people to play, work and socialize in an alternative virtual world by engaging in an immersive experience via a head-mounted display for virtual reality rendering (Xu et al., 2022).

Metaverse offers such an immersive experience that it can be used in psychotherapy. For example, people know that myths and novels are unrealistic, but they get emotional. Similarly, the Metaverse is not the real world but can provide a tangible feel. Thus, Metaverse provides services based on immersive user-interactive stories (Park and Kim, 2022). Metaverse is a concept to describe three-dimensional, virtual worlds without the physical limitations of the real world, in which people interact with each other and with their environment (Ondrejka, 2004). Metaverse, called collaborative virtual environment, "virtual worlds," or "second life," is also defined as "computer-generated, multi-user, three-dimensional interfaces that users can experience while existing in the environment" (Gadalla et al., 2013).

People are not confused while watching an avatar movie, and people can lead a stable cyber life in the Metaverse because they can distinguish between real and virtual life (Park and Kim, 2022). Memories experienced in the real world are elaborate memories and are irreversible traces of time. In addition, the Metaverse recreates the past, and users make different choices, providing psychological stability and emotional healing in their lives (Park and Kim, 2022).

Virtual Reality Experience

Virtual reality, which we recognize today as a head-mounted stereo display, monitoring, and computer-generated images, started about 50 years ago, although its hardware was different. In the 1980s and 1990s, virtual reality reemerged based on a different generation of hardware (Slater and Sanchez-Vives, 2016). Just as we experience the real world with a range of senses, experiencing a virtual environment with multiple sensory modalities can increase our presence in a scenario and our reaction to it (Ranasinghe et al., 2018). A virtual reality system is a system of interrelated elements that provides a virtual representation of an environment. A high-quality virtual reality system is

demonstrated by the reliability, feedback time, ease of access, and flexibility of the virtual reality device (Suhaeni et al., 2022).

A virtual reality system can be defined as moving users to a virtual environment by providing consistent perceptual feedback corresponding to the actions taking place in this virtual environment by guiding users to develop a sense of being there psychologically (Melo et al., 2022). Virtual reality is an alternative, completely separate, digitally generated artificial environment. In virtual reality, users feel they are inside themselves, in a different world, and work similarly to the physical environment (Slater and Sanchez-Vives, 2016). In other words, virtual reality is a technology that produces immersive, completely artificial digital images and environments with real-time interaction. One of the main purposes of virtual reality applications is to immerse the user's senses in an artificial virtual environment with an interactive experience (Khor et al., 2016). Virtual reality glasses, a tool that helps individuals to be drawn into this virtual environment, create the feeling that the virtual environment they are in is living in the real world. Thus, it is planned to increase the effect of the feeling of satisfaction on people resulting from virtual experiences (Aylan and Aylan, 2020). Virtual reality is known as the farthest end from reality in the reality-virtuality process. In other words, users who wear virtual reality glasses need to give all their attention to virtual environments and therefore leave physical reality (Lee et al., 2021). After users wear virtual reality glasses, they can see the current image through the optical system. Thus, the user has the opportunity to navigate the virtual environment easily by looking around (Tepe et al., 2016).

The Metaverse is powered by 5G and beyond wireless networks and edge computing technologies, enabling users to access this virtual world anywhere and anytime. Virtual reality users in the wireless internet-enabled Metaverse can feel and experience a sense of immersion with ultra-low latency and ultra-high reliable connections in various metaverse applications such as multiplayer online video games and virtual concerts (Xu et al., 2022). In addition, virtual reality technology enables users to experience and interact with virtual and immersive environments from a first-person perspective. For example, individuals can use a virtual reality device to navigate a fully immersive world and travel to any destination they set within the confines of their own homes (Chen et al., 2018).

Virtual reality activities have become popular in the last few years. One of the most popular disciplines for virtual reality is simulation. Virtual reality is an environment that feels mentally immersed or present in the simulation, consisting of interactive computer simulations that sense the participant's position and actions and replace the feedback given to one or more senses. Users act as if they are physically there, experiencing virtual individuals or subjects as if they were real (Van-den Bor et al., 2022). Virtual reality simulation is a simulation of 3D objects and a 3D environment used to support the learning experience, and this simulation is also used in many different disciplines such

as entertainment, education, medicine, maritime, and military (Armstrong et al., 2013; Buzink, 2012; Han et al., 2022; Häfner et al., 2013; Khan et al., 2018; Pendit et al., 2017; Våpenstad and Buzink, 2013).

Virtual reality is a three-dimensional simulation environment that gives users the feeling of being in a certain environment using different imaging equipment such as desktop or laptop computers, a cabinet environment, or head-mounted viewers (Kaleci et al., 2017). Virtual reality provides an experience as if you are in a specific place without physical limitations and helps you learn the ideas gained by experiencing different places. In addition, virtual reality is a technology that allows a new reality to compete based on 360-degree images (Park and Kim, 2022).

Materials and Methods

Research Design

This study used qualitative research methodology to explore participants' experiences with the Roller Coaster metaverse event. In this context, a qualitative descriptive design (Braun and Clarke, 2006) was used that included semi-structured interviews, thematic and descriptive analysis to explore people's experiences watching the Roller Coaster metaverse video. In the theme analysis, the transcripts of individual and focus group interviews, documents and observation notes are analyzed by dividing them into categories and sub-themes under the upper themes in context (Günbayı, 2019). While doing the analysis, the authors chose qualitative descriptions based on the expressions, sentences, and contexts used by the people who experienced the metaverse video.

Research Group

Purposive sampling, as used in many qualitative studies (Patton, 2014), was used in the study to include participants who experienced the Roller Coaster metaverse video. Students studying at Muş Alparslan University Faculty of Sports Sciences were invited to participate in the research to experience the metaverse video that is the subject of the research. Before the study, it was stated to the participants that some physiological effects such as dizziness and nausea may occur, and the participants who volunteered for the study were included. In line with the information obtained from the participants before the study, three criteria were considered for inclusion in the study: (1) Participants volunteer for the video application and in-depth interview for the research; (2) Participants have an interest in the video experience determined as the criteria for participation in the research; and (3) Participants have no previous experience with the Roller Coaster. The final sample size was determined based on the wide representation of the themes obtained due to the analysis and data saturation.

The research group consists of 34 undergraduate students studying in different departments (physical education teacher, coaching, sports management, disabled exercise department) at Muş Alparslan University Faculty of Sports Sciences. Demographic characteristics of the research group are given in Table 1.

Table 1

Characteristics of Research Participants.

Participants	Gender	Age	Department	Grade	Experience
P1	Male	24	PET	4	No
P2	Male	21	ESD	2	No
P3	Female	21	ESD	2	Yes
P4	Male	20	CO	1	No
P5	Male	20	CO	1	Yes
P6	Female	22	ESD	2	Yes
P7	Female	21	CO	1	No
P8	Female	20	CO	1	No
P9	Female	21	CO	2	Yes
P10	Male	21	CO	2	Yes
P11	Male	23	CO	4	No
P12	Male	23	SM	3	No
P13	Male	26	PET	4	No
P14	Male	25	ESD	3	Yes
P15	Female	21	SM	2	No
P16	Female	21	ESD	2	No
P17	Female	22	PET	3	Yes
P18	Male	27	PET	3	No
P19	Male	22	PET	4	Yes
P20	Male	27	PET	3	No
P21	Female	21	ESD	3	No
P22	Male	21	ESD	1	No
P23	Female	20	ESD	1	No
P24	Male	27	ESD	1	No
P25	Female	20	PET	1	Yes
P26	Female	21	SM	1	No
P27	Male	22	SM	4	No
P28	Male	24	CO	2	No
P29	Female	20	PET	3	Yes
P30	Female	20	PET	3	Yes
P31	Male	27	ESD	1	No
P32	Male	24	SM	4	No
P33	Female	22	PET	4	No
P34	Female	22	PET	4	No

(**SM:** Sports Management; **CO:** Coaching; **PET:** Physical Education Teaching; **ESD:** Exercise and Sports for the Disabled)

Research participants; 52.9% (18 people) are male, 47.1% (16 people) are female, between the ages of 20-27 (mean: 22.3; sd: 2.29), 32.4% (11 people) physical education teaching department, 29.4% (10 people) are from first-grade students and 67.6% (23 people) have no experience of virtual reality, metaverse, augmented reality, etc.

Data Collection

After informing the research participants about the purpose and aim of the study, necessary reminders were given that they could withdraw from the study at any time. Furthermore, participants gave written informed consent before starting the interview. Therefore, participation in the study was entirely voluntary. In addition, each participant was given a code to comply with the confidentiality rule.

The semi-structured interview form prepared by the authors who experienced the Roller Coaster video was used as a data collection tool. Semi-structured interviews are widely used in many qualitative research projects to provide flexibility (Bryman, 2016). Thanks to this flexibility in method, the research team also benefited from sounding/probing questions to add depth or richness to the answers to the interview questions. In the semi-structured interview form; 'What kind of experience did you have while watching the video?', 'Can you explain your situation of being stuck between the real world and the virtual world while watching the video?', 'How would you feel if a friend had such an experience?', 'How did the time pass for you while watching the video?', 'Did you experience different emotions at the same time?' and 'Did you feel some physical discomfort such as dizziness, nausea, etc. while watching the video?' etc. questions are included. The study's first author conducted all interviews at Muş Alparslan University between May and June 2022. Observation, one of the techniques used in triangulation, continued during the interviews and video watching. After the Roller Coaster video experience, which lasted for about 5 minutes, interviews that lasted between 15-30 minutes were conducted face-to-face in environments where the participants felt comfortable (office, canteen, empty classroom, etc.).

Data Analysis

Based on the thematic analysis approach of Braun and Clarke (2006), transcripts of the data in the study were analyzed by the first two researchers who carried out the study. The interviews were audio-recorded and transcribed verbatim. After the first five interviews were analyzed independently by both authors, a discussion took place to develop an agreed coding framework. This process continued until consensus was reached on the final themes. Inferences for the analysis were made either blinded or individually to allow for triangulation among investigators. The findings regarding the themes obtained were confirmed by the participants who experienced the video; thus, member checks and triangulation were provided (Lincoln and Denzin, 2000). Through the interviews conducted, continuous comparison and recategorization of codes and categories were made by the research team members. The themes that the researchers finally agreed upon were reported.

Validity and Reliability

One of the important issues in qualitative research is rigor. Rigor is a matter of trustworthiness and validity. In this study, research procedures and analyzes were carried out, taking into account the issues of believability and validity. The reliability issue was achieved by analyzing the data with a blind approach by the researchers and obtaining confirmation from the participants (member check). Concerning validity, continuous method triangulation was conducted among researchers; thus, it was tried to reach a consensus on inconsistent texts (Blumenfeld-Jones, 1995; Silverman, 2013).

Data transcription was carried out by the first two authors in the study. The researcher who conducted the interview had an informal conversation with each participant to facilitate the interaction during the interview and allow the participants to describe their experiences comfortably. Each participant in the study was given a numerical code (P1, P2, etc.) to ensure anonymity and to identify participants when necessary to use their descriptions in reporting. Figure 1 displays a few photographs from the application upon receiving participants' consent to share their images.

Figure 1. Images from the participants within the scope of the applications

Ethics of the Research

Ethics committee approval (Muş Alparslan University Scientific Research and Publication Ethics Committee) was obtained from the first author's university for the research to be carried out before the data collection process.

Findings

In line with the research, six main themes emerged from the interviews about the participants' Roller Coaster metaverse activity experiences. The themes that emerged were called "Superman",

"Pleasure Journey", "Fearless Coward", "Flow", "Emotion Zone", and "FoMO". Findings related to each emerging theme are presented below.

Superman

In their statements regarding their Roller Coaster event experiences, the participants emphasized concepts such as having unlimited power and flying. In addition, participants mostly mention that they can find the opportunity to realize in the virtual world what they dream of but cannot do in the real world. In this way, they stated that they experienced an indescribable feeling of happiness and freedom. Following the interviews with the participants, a few examples related to this theme are given below:

"Imagination can be limited in the real world, but I felt that my imagination could be limitless in the virtual environment. It was as if I could do anything at that moment… So much so that I thought I was flying for a second." (P7, F, 21, CO).

"As I was going up, I felt like the wind was hitting my face, and I was flying." (P12, M, 23, SM).

"It drew me in incredibly. For a moment, I lost touch with the real world… I said okay, I can fly." (P20, M, 27, PET).

"It was like I was dreaming. You have no borders, it was like I was flying. I thought if I could fly, I could do anything. This feeling gave me a lot of joy and made me feel free." (P32, M, 24, SM).

Pleasure Journey

This theme relates to participants' pleasure while experiencing the Roller Coaster metaverse event. The participants stated that they thoroughly enjoyed this activity and that it allowed them to forget about all of their responsibilities in the real world for a while and focus on the pleasure of the experience. This situation can be explained by modern hedonism. Modern hedonism refers to the pursuit of pleasure through emotions. In modern hedonism, it is argued that pleasure can be gained by daydreaming, separating it from physical satisfaction. Accordingly, pleasure can be obtained not only with certain actions but also with dreams and fantasies (Odabaşı, 2006; Ünal and Ceylan, 2008). After the interviews with the participants, a few examples representing this theme are as follows:

"It was incredibly enjoyable, and when it was over, I felt happy. I'm glad that I participated in this study. I would love to do this again." (P14, M, 25, ESD).

"I got a little dizzy for a while, but then it started to feel very enjoyable. It's like I've been exploring another world... I'll do it again." (P20, M, 27, PET).

"At first I was a little scared in the turns, but then it started to give me immense pleasure. It was as if it grabbed me from this world and took me to other realms." (P17, F, 22, PET).

"Even though I experienced it for the first time, it gave me incredible pleasure. I felt as if I was actually getting on that train and taking a joy ride." (P3, F, 21, ESD).

"During the experience, I left my lessons, homework, and everything aside and focused only on the moment. I surrender myself to the pleasure of the Roller Coaster." (P10, E, 21, CO).

"This experience has given me indescribable joy. It made me feel like I was leaving the real world we live in and traveling to other worlds." (P25, F, 20, PET).

"It was stunning both in terms of speed and visually. I had a great pleasure and would like to try it again." (P12, M, 23, SM).

Fearless Coward

The participants stated that although they were afraid from time to time about their experience, they had a pleasant time, and this experience felt like a step towards overcoming their fears. The participants stated that they were especially afraid of falling or heights, had occasional dizziness, and felt the need to hold on. These feelings gave them extra pleasure during the experience. It is thought that this situation arises from sensation-seeking expectations, just like in mountaineers. Pomfret (2006) states that sensation seeking acts as a main driving factor in individuals' participation in mountaineering activities. Similarly, it is considered that the effect of sensation seeking has an important place in individuals participating in the Roller Coaster metaverse event experience. As a result of the interviews, some of the statements of the participants representing this theme are given below:

"I love going up to high places and watching, but because I fear heights, I get dizzy and start to get scared. So, it made me feel like I could overcome my fear if I went through this experience a few more times." (P7, F, 21, CO).

"I felt incredibly free at that moment, but I was also terrified of falling." (P4, M, 20, CO).

"For a moment, I was very afraid that I would fall, I even realized that I was holding on to the seat tightly when I finished. But I enjoyed it very much. If I have a chance to, I will do it again." (P19, M, 22, PET).

"It was good at first, then I started to get scared, but even this fear gave me incredible joy. For a moment, I even thought of checking my pockets to make sure their contents didn't fall out." (P22, M, 21, ESD).

"I felt my legs tremble on the descents, but it was terribly enjoyable." (P8, F, 20, CO).

"I felt dizzy from time to time as if I was going to fall, but I don't think this pleasure will go away." (P16, F, 21, ESD).

"It's not that I wasn't scared in some places, but that's what gave me joy anyway." (P23, F, 20, ESD).

"I admit I was a little scared and excited, but I would definitely love to try again." (P11, E, 23, CO).

Flow

It can be argued that metaverse activity experiences have an important place in individuals' access to flow experience. In the flow experience, individuals take intense pleasure from their activities and focus only on the activity without any concern for financial gain (Nakamura and Csikszentmihalyi, 2014). Therefore, results such as fun, pleasure, happiness, and satisfaction can be observed in individuals who reach the flow experience. Furthermore, the experience of flow in leisure time activities such as Metaverse and not being aware of how time passes is considered the activity's success (Argan et al., 2022). Therefore, this theme relates to the participant's inability to realize how time flies while experiencing the metaverse activity. Some of the expressions representing the flow theme that emerged from interviews with participants are as follows:

"I really did not understand how time passed. I wish it didn't end." (P8, F, 20, CO).

"I enjoyed it so much that it was as if everything just happened and ended." (P18, M, 27, PET).

"It started and ended all of a sudden, as if I was dreaming." (P25, F, 20, PET).

"I couldn't understand when I got on that train and when I got off. I would like to ride one more time." (P3, F, 21, ESD).

"It was a very enjoyable experience for me. Time flew by like water. I would like to continue a little longer." (P9, F, 21, CO).

Emotion Zone

This theme represents the different emotions that the participants felt during the metaverse event experience. Participants stated that they simultaneously entered more than one emotional state during their experience. They emphasized the happiness they experienced by switching between different emotions. As a result of the interviews with the participants, some of the expressions representing this theme are as follows:

"While being thrown to the left and right, all the emotions such as fear, excitement, and happiness seemed to be intertwined ... I started to laugh involuntarily in between." (P30, F, 20, PET).

"I got excited when we started going up. Then we started descending, and at that moment there was an emptiness inside me, as I felt on the plane. Fear, excitement, and adrenaline all came together." (P22, M, 21, ESD).

"I was so excited to move my body along with the train; I almost lived that moment. Even though I was scared now and then, it was incredibly beautiful for me... I liked that it gave me different emotions." (P2, M, 21, ESD).

FoMO

This theme is represented by participants' Fear of Missing Out (FoMO). FoMO expresses the emotions that arise due to the experience and pleasure of others (Argan and Tokay-Argan, 2020; 2019; 2018). During the interviews, the participants mentioned that when their friends have any experience with virtual reality, augmented reality, or Metaverse, they will first research this subject. Then they will definitely create an opportunity to try it. Moreover, some participants said they felt jealous when they learned their friends had experienced the metaverse activity before them. Some of the statements of the participants representing this theme are as follows:

"If my friend tried it, I would do my best to try it too." (P1, M, 24, PET).

"If my friend has such an experience, I will do whatever it takes to have the same experience. I get a little jealous, I think why shouldn't I do it too." (P19, M, 22, PET).

"If a friend has such an experience before me, I immediately add it to the top of my to-do list." (P34, F, 22, PET).

"No matter what I do, I try to live my friend's experience too." (P27, M, 22, SM).

"I'll start researching right away, and I'll definitely have that experience myself." (P21, F, 21, ESD).

Conclusion and Discussion

This study aimed to determine university students' experiences, thoughts, and feelings regarding the metaverse event experience from a virtual reality perspective. For this purpose, in-depth interviews were conducted with each participant after the Roller Coaster metaverse video that was shown to the participants. As a result of the thematic analysis, six main themes emerged "Superman," "Pleasure Journey," "Fearless Coward," "Flow," Emotion Zone," and "FoMO." In light of emerging themes, it can be argued that virtual reality experience allows participants to experience some activities that are almost impossible to do in real life. Participants stated that they almost felt like flying in their virtual reality experiences. Here, the sense of unlimited freedom experienced by the participants comes to the fore. The participants not only feel more liberated as a result of the virtual reality experience, but they also enjoy it very much. In addition, the participants also stated that although they took great pleasure from their experience, they were sometimes afraid of heights or falling. Despite their fears, they insisted that they did not regret having the previous experience and that, if possible, they would like to have it again. Based on the study's findings, it was revealed that virtual reality experiences could help some participants overcome their fear of heights. Similarly, Kaleci et al. (2017) also emphasize that virtual reality environments can reduce negative anxiety caused by fear of heights. When the relevant literature is examined, various studies (Choi et al., 2001; Juan and Pérez, 2009; Rothbaum et al., 1995a; Rothbaum et al., 1995b) show that fear of heights can be treated through virtual reality. Participants felt that time passed very quickly during their experience. This situation can be associated with the feeling that the time people enjoy is passing very quickly. Here, the flow experience comes to the fore. For the flow experience, Nakamura and Csikszentmihalyi (2014) mention that when people enjoy their participation in activities, they only focus on that activity. As a result of the statements of the participants and the observations made during the experience, it was determined that they experienced various emotions simultaneously during their experience. In addition, the participants stated that they would feel jealous, albeit at a certain level, when someone else had this experience before them. This situation can be explained by the fear of missing out (FoMO). Argan et al. (2022), emphasizing that the feeling of FoMO emerges

mostly from the experiences related to the activities, state that they try to experience the activities to avoid falling behind from their friends' experiences.

Some of the themes obtained from the study show parallelism with the literature. Eight themes emerged in the study of Argan et al. (2022), in which they examined the user-based metaverse event experience. Among these themes, FoMO-based non-French, flow, and instant gratification themes are in line with the findings of this study. Also, Kim et al. (2020) evaluated the user experience of virtual reality in four different metrics: presence, workload, usability, and flow. In the study on immersive virtual reality carried out by Tcha-Tokey et al. (2016), presence, engagement, immersion, flow, usability, skill, emotion, experience consequence, judgment, and technology adoption factors emerged. Studies in the field of tourism also support the flow theory and suggest that the flow experience resulting from visiting tourist attractions using virtual reality will lead to satisfaction, positive attitude, and repurchase intention (El-Said and Aziz, 2021; Han et al., 2020; Kim and Hall, 2019; Kim and Ko, 2019). In addition, Kim and Hall (2019) theoretically confirmed that the flow state in the virtual reality tourism platform could be an important mediator of hedonic motivation systems. Starting from the great influence of perceived pleasure on the flow state, they revealed that pleasure and flow are the main factors for hedonic motivation systems.

When all the themes that emerged as a result of the study are evaluated, it is seen that the students enjoy this experience and cannot understand how time passes. This experience is a step in overcoming their fears. Thanks to their experience, they transition to different worlds and emotions. They also fear being missed out on those who have had this experience. Therefore, it shows that when their friends experience such an activity before them, they will certainly make an effort to try it, and they experience the feeling of being free by getting away from all the restrictions in the real world.

Theoretical and Practical Implications

This study expands the knowledge and literature on the experiences of individuals participating in virtual reality or metaverse activities. It may have the potential to provide insight into experiences in virtual reality or metaverse activities in other fields. From a broad perspective, the study findings reveal opportunities for additional qualitative, quantitative, and mixed research and theoretical knowledge. The study's findings might also serve as an example for virtual reality studies in different disciplines. In addition, the study findings are also a guide for future researchers who want to work on similar issues. The findings obtained from the research might enable the advancement of virtual reality environments, Metaverse, and leisure-based activities in particular and may reveal many potential research opportunities. While using virtual reality technology for a recreational activity, basic virtual reality elements such as immersion, interaction, and environmental

participation should be used most appropriately. For example, as Argan et al. (2022) stated, the flow element may play a role in developing strategies to influence virtual reality users' current feelings and stay in the environment so they can feel pleasure without boredom, thanks to proactive virtual regulation criteria. The entertainment industry's creative organizations can take advantage of the chance to develop a brand-new, holistically oriented, morally upright, and culturally acceptable marketplace to comprehend the service experience in the context of comprehensive next-generation technology.

Limitations and Future Studies

As in every scientific study, there are some limitations in this study as well. Since a qualitative research method is used in this study, the number of samples is limited. The number of samples can be increased even more by using quantitative or mixed methods in future studies. In addition, the study is limited only to the date range in which it was conducted. Richer data can be obtained in similar studies to be conducted in future by keeping the date ranges longer. The fact that the research was conducted in a single university can be considered another limitation. Finally, it can be argued that the most important limitation of the study is the inability to use virtual reality glasses with the first ten people due to some technical problems. Nevertheless, it tried to provide the necessary environment (dark room, big screen, sound system, etc.) for these participants to experience the event. The work continued with the remaining twenty-four people using virtual reality glasses. In similar studies to be carried out in the future, the decisive effect of the virtual reality glasses, which play an important role in the virtual reality experience, on the experience quality of the participants should be considered.

Statement of Ethics Committee Permission

Ethics review board: Mus Alparslan University
Date of ethics assessment document: 30.05.2022
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Statement of Researchers' Contribution Rates

The processes related to the literature, methods and findings and discussion-result part of the research were carried out by the first author, the processes related to the method and findings were carried out by the second author, and the processes related to the literature, method and discussion-result part were carried out by the third author.

Statement of Conflict

"The author(s) do not have a statement of conflict regarding the research."

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