

A Psychological Study of Serious Leisure Experience for Bobsled Participants in South Korea

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Abstract

The purpose of this study was to investigate the experiential characteristics of serious leisure by analyzing bobsled participants' motivation and activity experience. In this study, data were collected and analyzed through in-depth interviews with participants (4 people) who participated in bobsled as a serious leisure. For the data analysis, the transcription was performed based on the in-depth interview recording file, and the meaning of each word was analyzed by dividing the observation log into paragraphs, sentences, and words in order. The contents and results of the study are as follows. The motivations of the bobsled participants were diverse, including athlete support, curiosity, personal romance, and catharsis. The experiential characteristics of the bobsled participants were: First, they continued to participate because bobsled was attractive due to its unique differences as compared to the other sports. Second, they were experiencing physical stress and trauma such as injury, fear of injury and rehabilitation, and mental stress such as trauma experienced when the sled overturned. Third, the time record of the game was a tool that provided strong feedback to the participants. Fourth, the bobsled participants had a particularly high interest in the record of the start section and were making efforts to acquire specialized skills and knowledge to improve the record. In addition, they acquired information and knowledge related to the sport through long-term experience and continuous effort and were satisfied with their appearance.

Keywords: leisure, serious leisure experience, bobsled, South Korea

1. Introduction

The improvement of national income along with the implementation of the five-day workweek system in Korea led to an increase in the number of people participating in leisure activities. Consequently, this has fueled the development of diverse leisure activities. Modern people diversify their leisure activities according to their personal tastes and preferences. Unlike in the past, the current leisure activities are more serious and are conducted more professionally [1]. This trend was initially observed in countries with advanced sports such as the France, Netherland and Germany, and gradually spread to other countries [2]. The trend of diversified and specialized leisure activities has been analyzed in leisure studies, with a focus on the 'professional' aspects [3].

Stebbins introduced the concept of 'serious leisure' in his book, 'Serious Leisure' [4]. According to Stebbins's definition, Serious leisure is the "systematic pursuit of amateurs, hobbyists, and volunteer activities, where the participants discover the value and interest of leisure activities and acquire professional knowledge, skills, and experiences" [5]. Stebbins argued that individuals can gain personal benefits such as self-actualization, self-expression, positive self-image, self-satisfaction, and recharging, and social benefits such as social attractiveness, and contribution to group development, maintenance, and achievements, by engaging in serious leisure [6]. He proposed the following six characteristics of serious leisure that distinguish it from everyday leisure. First, they need to persevere to overcome a situation. Second, serious leisure participants experience a sense of achievement through steady participation and transition and build up their careers through this experience. Third, personal effort is required to gain professional knowledge, and skills. Fourth, the participants gain benefits such as self-satisfaction, self-actualization, self-expression, self-image enhancement, social interaction, and a sense of belonging through leisure activities. Fifth, they choose and pursue activities that make them active and feel a strong identity. Sixth, it has unique characteristics, such as values, norms, moral principles, and the participants' belief in the activity in which they participate [7].

For instance, after the introduction of the bobsled sport, various projects were carried out but were governed by elite sports policies, which made it less accessible to the general public [8]. Nevertheless, there are people who have a great interest and have been active in various bobsled competitions and events. Therefore, we are curious to know why bobsled sport continues to be attractive. Based on Stebbins's description, those who continue to engage in bobsled activities have the characteristics of serious leisure participants.

The purpose of this study was to analyze bobsled participants who show the characteristics of serious leisure participants. This study is the first study dealing with bobsled as serious leisure. It was intended to analyze a series of processes and experiences of participating in bobsled activities and whether its attraction was due to the sledding charm. This study is expected to provide useful data for transforming the bobsled sport into a daily leisure and general public sports activity in Korea. In addition, they hope that other countries that are in a similar situation to Korea will also be used as basic data to help spread the bobsled activity as a leisure activity.

2. Theoretical Background

2.1 Bobsled

Bobsled has already been recognized as a fun element as a sliding sport from 100 years ago and has established itself as a sports activity. There are several obstacles (facility, location, and equipment) to develop into a popular leisure sport. These obstacles are a limiting point in the development of bobsled as a public leisure. Therefore, it has developed as a sport enjoyed by a small number of people rather than a general public leisure activity. There is also a lack of leisure-related studies on bobsled, and it is true that there are no leisure-related studies dealing with bobsled as a serious leisure activity. The situation where a small number of people enjoy bobsled as a leisure activity is the same in Korea. After the event was introduced, the central and local sports organizations made efforts to popularize the event, but it can be seen that only a small number of people experienced the bobsled event. In order to investigate the possibility of popularization of bobsled as a leisure activity, it is necessary to study the small number of people who participate in bobsled as a leisure activity.

In Korea, earnest research on serious leisure began in 2003, and subsequently, in the past 20 years, a lot of qualitative and quantitative research has been conducted. It has been conceptual approach, studies on the phenomenological, grounded-theoretic, and cultural and technological qualitative approaches to the serious leisure experienced by participants in sports such as running, taekwondo, dance sports, horseback riding, motorcycle, sailing, and camping have been steadily conducted [9]. In addition, various quantitative studies have been conducted on the structural relationship and causal model of serious leisure as a variable to the development of the serious leisure scale [10]. Owing to the growing interest, and diversification and specialization of leisure activities, an academic approach to serious leisure is an important research topic. In countries with advanced sports such as bobsled, an extreme winter sport, leisure activities are popular. In addition, the single-man bobsled was introduced as the mono bobsled, a single-man bobsled, was adopted as an official Olympic event from 2022 [11]. This was designed to free individuals from the burden of forming a team member and allow individuals to freely enjoy the sport like a luge or skeleton.

In 1998, 25 years have passed since the introduction of the domestic bobsled event [12]. It has produced stars in sports, including Olympic medalists. In addition, every year, the Bobsled World Cup and World Championships are continuously broadcast through sports TV programs [13]. People's interest in bobsled is increasing day by day. However, there are many restrictions on access to leisure activities such as stadium use and equipment rental. Many people are unable to engage in bobsled as a daily leisure activity, and only a small number of people are participating. Currently, there were a total of 9 local bobsled competition organizations in Korea, and the number of participants is about 100 people [14]. Of these, about 15 are continuously active. This study attempted to analyze the subjects who are currently participating in bobsled as a serious leisure form in exploring the possibility of daily leisure activities in the bobsled sport.

2.2 Serious Leisure

Serious leisure is distinguished from casual leisure by six characteristics that are found exclusively or are particularly elevated only in the former. These are: (1) the need to persevere in the activity, (2) the availability of a leisure career, (3) the need to strive to acquire skills and knowledge, (4) the realization of various special

benefits, (5) a unique ethos and social world, and (6) an attractive personal and social identity. Casual leisure is immediate, inherently rewarding, and is a relatively casual activity. It is an enjoyable activity that requires little or no special training to enjoy it. It is fundamentally hedonic, and it is practiced for the significant level of pleasure found in it [15]. The adjective “serious” in this case includes traits such as sincerity and attention rather than seriousness, anguish, or anxiety [16]. Perseverance and persistence, effort, leisure career, permanent acquisitions, specific norms, and identification with the occupation are some of the hallmarks of serious participation in leisure [17]. Considering the main activities of a serious participant in leisure, university programs for seniors can be an opportunity to develop this type of leisure during adulthood. For years, multiple investigations [18] point out that participation in learning spaces for older adults has positive consequences such as feeling satisfaction with oneself, improving self-esteem, keeping the mind active, stimulating the intellect, achieving pleasure, enjoyment, and empowerment. In short, it improves the quality of life at all levels.

3. Materials And Methods

3.1. Study Design

Since the number of people who enjoy bobsled as a serious leisure activity is small, this study was intended to focus on their special experiences and perceptions. In order to achieve the purpose of this study, in-depth interviews and participatory observation were conducted to interpret the experiences of bobsled participants. The phenomenological research method focuses on the experience and essence of the phenomenon to be studied. It collects data from the research subjects' demographic characteristic and grasps the structure of essence through inter-subjectivity in individual consciousness.

In this study, demographic characteristic of subjects data were collected, and the structure of essence was grasped through inter-subjectivity in individual consciousness, and the findings were described phenomenologically [19]. This study was designed according to the four-step research method of the phenomenological research suggested by Giorgi [20].

3.2. Participants

A purposive sampling method was used to select the study participants [21-22]. The first nine subjects were selected due to the fact that the bobsled leisure population was not large. However, a total of 4 participants were selected as the final study participants. Above all, it is because the participation observation and in-depth interview techniques of qualitative research were judged to be appropriate in analyzing the participation motives and processes of a small number of subjects who had the will to participate even in the context of various restrictions in access to events [23-24]. The reason why 5 subjects were excluded and 4 were finally selected is because the participants in leisure activities were selected in consideration of the number, duration, and frequency of contest participation based on the serious leisure characteristics suggested by Stebbins [25]. It is difficult to generalize the results of the study because it was conducted with a small number of people. However, by revealing the meaning of 'experience', the essential subject of hermeneutic phenomenology, the opinions of participants who experience bobsled as a serious leisure are gathered, and the internal meaning structure of the experience is revealed and described. The data obtained based on this can be used to design bigger studies with more participants to further a more in depth the understanding of the leisure participation situation of the bobsled event especially in relation to the possibility of bobsled being used as a general leisure activity. The characteristics of the study participants are shown in the table 1, and they are indicated by IDs to protect personal information.

[Table 1] Basic information of the participants.

ID	Frequency in Game	Participation duration	Gender	Age
1	15	5 years	Male	28
2	12	4 years	Male	27
3	10	4 years	Male	25
4	10	3 years	Male	25

3.3. Data Collection

3.3.1. In-Depth Interview

The application of the in-depth interview technique in qualitative research provides the advantage of being able to get a deep understanding of the research subjects and obtain specific information by exploring the thoughts of the research participants on a specific experience [26-27].

In this study, as the first study dealing with bobsled as a serious leisure time in Korea, the study was conducted without any preconceived notions regarding the experience and perception of the study participants, in-depth interviews were conducted with semi-structured questions, and semi-structured interviews were conducted with pre-prepared questions within a certain range to prevent the study from deviating from its essence. Since open-ended questions can be asked in consideration of the participants' answers and responses, this method provides a deeper understanding of the research subjects <Table 2>.

In-depth interviews were conducted from January to August 2020 during the course and competition period. An additional interview was conducted for over seven days during the Korea Cup in March 2021. Interviews were mainly conducted at the stadium and nearby coffee shops before and after the participants. Interviews lasted from 30 minutes to 1 hour.

[Table 2] Semi-structure questions.

ID	Questions
1	What motivated you to participate in bobsled?
2	How long have you been in bobsled?
3	What do you think is the charm of bobsled?
4	What kind of efforts do you make to be good at bobsled?
5	What was the difficulty you felt while playing bobsled?
6	What kind of changes did you feel before and after bobsled?
7	What does bobsled mean to you?

3.3.2. Participant Observation

Cho said that it is important to form a consensus through interaction between the researchers and participants [28]. Participatory observation helps to form a natural rapport with interviewees which helps in interpreting and understanding data from the perspectives of natural interviewers and study participants. In other words, it is a research approach that helps to understand the research subject in a way that characterizes the main activities, by spending time and being in contact with the research participants for a long period of time [29].

Researchers can capture the participants' attitudes toward bobsled by observing the participants' behavior in the actual field during competitions. The observation log, which was continuously recorded, was used to understand the participants' experiences and the mutual context in the interview contents.

3.4. Data Analysis

Data analysis was performed using the transcription rule suggested by McLellan, MacQueen, and Neidig [30]. In order to prevent misunderstandings and errors during the analysis, it was thoroughly read several times. For the data analysis, the transcription was performed based on the in-depth interview recording file, and the meaning of each word was analyzed by dividing the observation log into paragraphs, sentences, and words in order.

3.5. Validity and Reliability

Phenomenological research is one of the most interesting and promising research methods for collecting data based on the experiences and memories of research participants. However, quantitative research researchers have raised questions about the reliability and validity of the study. Therefore, in order to increase the reliability and validity of qualitative research, various approaches are taken in data analysis [31].

In this study, 4 professors of Ph.D. leisure had participated in the triangulation method. Triangulation method was used to increase the validity and reliability of the study; the triangulation method prevents errors in study designs and results and improves the validity of qualitative research results. In this study, a peer review process was conducted [32]. To increase the validity of the study, in-depth interview and the log of researcher were reviewed the study in the field. In addition, after the interview, the researcher went through the reviewing process based on the interview details to see if the subjects of study clearly understood the interview content.

3.6. Study Ethic

It was fully explained that the contents of the interview were not to be used for any purpose other than the purpose of this research. Consent was obtained from the participants, and the recording was done, and on-site recording was also performed. After the interview, the answers with an ambiguous meaning went through a reconfirmation process by phone or e-mail.

3. Results And Discussion

3.1. Motivation to Participate in Bobsled as a Serious Leisure

Based on the results of the present study, the main reasons for participating in bobsled as a serious leisure were ‘athlete support’ and ‘curiosity’. Since its introduction in Korea in 1998, bobsled has developed into an elite sport governed by the elite sports policies, to achieve Olympic status, during the challenge period for the Pyeongchang Winter Olympics. However, the number of people participating in bobsled as a leisure activity is small because the central sports organization focused on nurturing professional athletes rather than nurturing sports enthusiasts. Some of the participants confirmed that they joined the sport due to the player discovery project of the central sports organization. In other words, they joined the sport to become elite professional bobsled players, and then participated as a leisure activity rather than as a professional athlete. Among the motives of serious leisure participants, the ‘athlete support’ motive has not been reported in the previous studies. This can be seen as a transitional characteristic of the Korean bobsled sport presenting a special case where bobsled was introduced to Korea and temporarily appeared during the Winter Olympics.

“Among the people my parents knew, there was a director of the Bobsled Federation. I heard that running fast is an advantage advantageous in this sport, so I got a recommendation and joined the sport. Being an athlete is really hard and after training for about six months, I found it challenging, so I stopped being a professional athlete and quit, but I still belong to the Federation. Rather than a professional player, I continued playing bobsled for fun.” (Participant 1)

“I joined bobsled sport because I heard that becoming an elite athlete in this sport can give you an advantage of joining university. Apparently, not many people play this sport, and I found out about it because my teacher advised me that there would be some advantages in managing grades and specs. Even though I didn't go to college as a bobsled player, I continued playing to improve my performance. While I do not go to international competitions as a representative player, I play bobsled because it makes me feel good, my body is gradually becoming like that of a player and my records are getting better. I would like to continue playing.” (Participant 2)

On the other hand, for the participants who joined the sport out of curiosity, they started with a liking for the sport through the image of bobsled known through the media. The bobsled became known to the Korean people when it was reported in the media after it won (3rd place) in the 2008 American Cup with a rented sled. Since then, it was introduced in the current affairs education programs, documentaries, and entertainment programs, subsequently increasing its popularity. Participation in bobsled as a leisure activity was the first reported through such mass media programs or news media and influenced the decision to participate.

“I enjoyed Infinite Challenge (an entertainment program), through which I realized there was such a sport. But at that time, I had no intentions of playing bobsled. I just vaguely thought that I would like to try it someday. I was curious. However, after seeing the notice that the federation was holding a workshop, I applied. Since then, I have participated in almost every event. I also volunteered for bobsled at the 2018 Pyeongchang Winter Olympics.” (Participant 1)

“I got to know the sport by watching cool running movies when I was a kid. In addition, my teacher showed me a bobsled documentary in class. To me, it was challenging and required perseverance. And since there is such an image of great speed and a sense of speed, it is a manly sport. I dreamt of trying it one day too. If you look at the video of the game, the players look like bulls, steaming up and down from their bodies, but they push their sleds in unison and run. It looked great, and luckily, I happened to find out that the federation was holding a workshop and I applied for it.” (Participant 3)

“There was a time when bobsled appeared in CF. I thought it was cool back then. Then, a while later, I happened to find out that there was a training session and I decided to participate. Expectedly, when I rode the bobsled once, the thrill was great. I think it felt like a kind of catharsis. So, she's still doing it.” (Participant 2)

In a previous study on extreme sports and adventure sports the main motivational factors of the leisure participants were curiosity, catharsis, childhood romance, challenge, and thrill, and similar results were reported by the Korean bobsled participants [33-34]. Through this, it was confirmed that this sport is recognized by the public as an extreme sport or an adventure sport. On the other hand, Korean bobsled players joined the sport for various reasons, such as ‘athlete support’, ‘curiosity’ or ‘personal romance’, but after that, they fell in love with the sport and continued to participate. Most of those who participate in adventure sports as a serious leisure activity show a phenomenon of being intoxicated by the action itself. This immersion phenomenon relates to the results of previous studies that showed addictive elements [35-36].

These results are confirmed in the situation of bobsled in Korea, and similar results were not found in previous overseas studies. However, from an international point of view, the fact that bobsled is a sport that is difficult for the public to encounter on a daily basis and that it has several limitations in continuing it as a daily sport can be seen as a similar situation to Korea.

3.2. Satisfaction from the Allure of Bobsled

3.2.1. The Charm and Identity of Bobsled

Korea joined the Bobsled International Federation in 1999, and Korea's first bobsled team was founded in 2003. Since Korea started its full-fledged activities and hosted the Pyeongchang Winter Olympics in 2003, an elite sports center was established in Korea. Although it is true that bobsled as a daily physical activity has low accessibility, those who choose to participate in it as a leisure activity perceive this low accessibility as a special feature that sets it apart from other sports.

“I joined it out of curiosity, but not many people do it. Would you say you feel like a pioneer? There will be a lot of people participating in the future, but there are not many people yet. I like that more. The fact that I'm doing an exercise that other people don't, makes it even more interesting. It feels good to be special.” (Participant 3)

“When you talk about riding bobsled, your friends ask how it is done. Maybe people don't know about this sport yet, but if it becomes known, I think it will attract a lot of people.” (Participant 4)

Also, it is a speed competition sport where bobsled races compete for 1/100th of a second. The representative image of a bobsled event can be described as 'fast speed'. What sets bobsled apart from the other sports that compete for speed is its non-motorized sport nature. Even though it is a non-motorized sled, participants can fully feel the vibration of the ice surface from the speed of 120 to 130 km and there is no separate shock absorber. Owing to the sense of speed experienced by the actual participants, it can be said to be more than a power sport. The bobsled participants were also attracted to the bobsled characteristic elements, and they recognized such characteristics as the pride of the sport and themselves.

“When people around me say that they ride bobsled, I wonder how they ride that scary thing. Riding at an amusement park is terrifying, how about bobsled? Are you afraid to ride? I'm asking if it's safe. When that happens, I feel something euphoric. Would you say that I feel like I'm doing things that other people can't?” (Participant 1)

“A bobsled doesn't have a speed propulsion system, nor does it have a speed control system. However, when I started, I was afraid at first that I could not stop even if I wanted to stop, but now I have a strange thrill. You get feelings that are uniquely different from those of the other sports.” (Participant 2)

“The sound and vibration inside the bobsled are completely different from what you see from the outside. The sound and vibration of the sled as it slides down the rough ice surface, the shock felt when it collides with the wall, and the sense of speed and gravity are all charms that cannot be felt in other sports.” (Participant 1)

3.2.2. Enhancement of Self-Efficacy Through Overcoming Stress

Sung, Ko, and Jung showed that leisure participants go through both positive and negative experiences [36]. Stress from various causes was seen to be a part of the negative experience. The stress experienced by bobsled participants was largely divided into physical and mental difficulties. In the case of physical difficulties mainly related to injuries, and there was stress from injuries suffered during games and training, and pain experienced during the rehabilitation process.

“The first steps in bobsled, are important. So, I practiced a lot of pushing and riding a sled, but on one occasion I performed poorly, so I couldn't warm up enough as usual. Then while I was running, my hamstrings came out and I suffered for a few months. I have a bit of a stiff body. After that, I warm up enough before starting. I learned a big lesson.” (Participant 3)

“One time while riding a sled, I bumped my shin against the metal inside the sled, and when I finished, I was bleeding. I didn't even know it was bleeding. I didn't know because I was nervous, but when I got off the sleigh, it was swollen and very painful. But as time passed, I felt something like a wound of glory. Probably no one has ever been injured while bobsled. It was like a decoration.” (Participant 4)

Mental stress is often accompanied by physical stress. The results of the present study showed that there is fear of the prize, or the trauma experienced during the sled overturning accident. Due to the nature of sports that require full effort, small to large injuries occur, and in such cases, participants seriously think about whether to give up bobsled. Also, there are cases where the trauma of riding a bobsled again may occur due to the after-effects of bobsled overturning. It was found that these traumas gradually disappeared when the sled was driven carefully in the same section where it was previously overturned.

“I would be lying if I said that there is someone who has been riding a bobsled and has never been overturned. I've been turned upside down severally, but would I say I'm used to it now? When I turned over the first time, my hair was dark. Also, I didn't realize it at that time, but as time passed, the part that hit the ice was swollen. It was also very painful. You can't say it's a sport. In the beginning, I thought about quitting, and then I hesitated. However, as time passed, I learned how to deal with a turnover and gained confidence.” (Participant 1)

“It turned over, and the next time I rode it, it turned over again in the same section. So, after that, I was really afraid to ride bobsled. I don't want to ride it because I'm afraid it will tip over again. You said you were controlling it properly, but as the same situation happened repeatedly, I lost my confidence. However, I thought that if I quit bobsled like this, something unpleasant would remain forever. I thought I was like a loser, so I did image training hundreds of times in my head, and after a few days I rode it again, and this time it didn't turn over but rode well. After riding it a few times, the trauma went away. And on the contrary, I felt more confident and had more fun.” (Participant 2)

Ma, Ma, & Chen suggested the recovery of self-esteem or improvement of self-efficacy as positive effects of serious leisure [38]. They revealed that this was achieved by overcoming the stressors experienced by the participants through leisure experiences. They confirmed that the bobsled participants also gained confidence by recovering their self-esteem while overcoming physical pain such as injuries or trauma caused by an unexpected sled overturning accident through continuous participation. Stebbins said perseverance, a sub-factor of serious leisure, refers to participants enduring and overcoming difficulties, danger, and tension, which arise in the process of the activity, and participating in the activity until the end [39]. He also said that the process of overcoming, and perseverance are among the features that differentiate serious leisure from the other forms of

leisure activities. In the end, as a participant of serious leisure, the bobsled participants were confirmed to participate in the bobsled until the end while persevering and overcoming the physical and mental stress.

3.2.3. Benefits and Rewards

According to Shupe & Gagné, serious leisure is rewarded after skillfully mastering a difficult skill or engaging in leisure through intrinsic motivation [40]. In this context, it was found that bobsled participants also felt a sense of accomplishment when they completed the course or improved their records.

“At first, it started with a youth level. After that, I started a little higher, and when I gained confidence, I climbed up to the top and rode it. When I got to the top start for the first time, my heart was pounding. It's a lot faster than riding from underneath. I was very nervous, but when I started and passed the corner, a curve I was familiar with came out, which gave me confidence and peace of mind. I even finished it. I was so proud that I can't even describe the feeling in words. I felt refreshed, I felt like I had done it.” (Participant 2)

“When you enter the finish line, you will see an electric sign in front of you. There the records are displayed. The record may change depending on the condition of the stadium, and even if there are environmental variables, it feels good when the record goes well.” (Participant 3)

“The start is almost unaffected by the environment, so I feel proud when the record improves. It's the result of hard work. So, besides exercising, I started to pay more attention to what I eat. It's hard and hard to build a body, but if you eat anything and ruin your body, it ruins your exercising efforts” (Participant 1)

Bobsled participants show a tendency to check their skills through the running records; they start a records section of the bobsled and check their skills. In addition, it shows how to manage health through a restrained life, such as improving physical strength during exercise and limiting food. Importantly, it was confirmed that the 'record' is a tool that provides strong feedback to the participants and motivates them to continue with the exercise. These characteristics can be consistent with long-term benefit and reward among the characteristics of serious leisure [41].

3.3. Efforts to Acquire Specialized Skills and Knowledge

3.3.1. Changes in Posture and Records

For bobsled, the stadiums differ across countries, so comparison of records between stadiums by country is meaningless. However, since there are no significant differences in the starting section, bobsled players are classified according to the record of the starting section. This trend was also confirmed in the participants who participated in bobsled as a leisure activity, and it was confirmed that the participants with good posture, and excellent records in the start section were recognized by the group. For this reason, bobsled contestants were making efforts to shorten the record in stance and starting sections in order to gain more recognition.

“He has an athlete-level attitude. Maybe it was because I was a player for a while. The form of running while pushing a sled comes out just right. I think it's different to go out without bending or stretching your arms at all and holding out at 90 degrees. It's different when your legs are straight and stretched out when you go out. I also learn a lot by watching.” (Participant 1)

“In the past, when I didn't know, I thought that if I pushed with force, everything would work out. But that wasn't it. When I first pushed a bobsled, I realized that the angle and the legs are important, and the angle of the lower back and of the arms things to be concerned about. I now does better compared to the past, but I still do not fix the leg split open when running. I know it's hard though.” (Participant 2)

“I know that the start record of the national team players is the record of 3 invitations. Ace players are said to be in the mid-three second. I've been doing this for several years now, but I didn't know that reducing the record by 0.01 seconds would be this hard. It is said that reducing the record by 0.01 seconds is difficult even in running. But in bobsled, it's not just running on my own, I have to push that heavy piece of equipment to run, so it's harder to maintain my muscles. It seems unreasonable to increase my muscle strength to shorten the record, so I am focusing on my posture as much as possible right now.” (Participant 4)

Participants pay a lot of attention to the record from the start section of the bobsled sled from pushing the sled to boarding, that is, the start record. In order to shorten the start, record, it was often observed that the participants exchanged information about each other's posture, body balance, angle, and direction of force at the start time. It was confirmed that a considerable amount of time was devoted to starting exercise. In such cases, serious leisure participants who take advantage of sports-type leisure, benefit from participatory benefits such as professional skill acquisition or career accumulation. It was said that they showed a systematic and continuous activity through knowledge or skills in the field of that activity, rather than the casual leisure shown in the simple participation form [42-43]. The interview contents explain these points.

3.3.2. Study of Bobsled

Based on the interview results, the bobsled participants had extensive knowledge of the bobsled sport. The results also showed that information and knowledge about international events such as the World Cup and the Olympics, and information about foreign players, were as popular as the experts. Notably, this information is difficult to understand without a long-term interest in sports. Stebbins mentioned that extensive knowledge or special knowledge in the field is one of the characteristics of serious leisure participants, and it is revealed that they are accumulated through long-term experience or continuous effort [44-46].

“American players, including until Stephen Holcomb, were always in the top ranks, but last year's and this year's results aren't very good. If you see a lot of mistakes while driving, maybe it's because the driver wasn't trained, or the Holcom player was exceptional. I wonder if American athletes can recover and perform well in the Olympics in the future.” (Participant 2)

“I definitely watch the broadcast. SBS broadcasts men's bobsled games. I'm watching it without fail. But it's disappointing that women's matches are rarely broadcast. Kim Yu-ran's match is also interesting. So, I'm looking for a YouTube stream to watch it. YouTube broadcasts all the matches. I tend to watch every match that Korean players participate in, regardless of whether it is a men's match or a women's match. And you can chat on YouTube. So, I also pass the knowledge I have by writing in the chat window. There are times when I feel like I have almost become semi-professional.” (Participant 1)

“I heard that he was explaining the scientific principles of the sport at a lecture, so I went to hear it. Is it a cycloid curve? There was a time when a lecturer explained it to me, and that's when I found out. There is such a thing as the fastest curve. So, I searched for which curves among the curves of the stadium apply the cycloid curve, and I also did some research on my own.” (Participant 3)

Choi said that one of the characteristics of serious leisure participants is that they work hard to acquire specialized skills and knowledge through a lot of practice [47]. The bobsled participants also tried to acquire various information and knowledge on bobsled in various ways and were satisfied with their appearance.

4. Conclusions

This study was bobsled participants as a serious leisure activity. However, bobsled is not an easy sport to participate in it. Therefore, participants actively collect information and visit the stadium to engage in bobsled activities. In other words, if they do not like bobsled, it is a sport that is difficult to participate in continuously. It is judged that the bobsled contestants can be explained by a serious leisure theory. Also, based on the results of this study, it was possible to discover the possibility that bobsled activity could develop from serious leisure to casual leisure. Research on a small number of participants in leisure activities needs to be conducted in various fields. The above study on serious leisure proves the value of the study by conducting a study with a small number of participants.

The experiential characteristics of the serious leisure of bobsled participants were: first, unlike the other sports the number of participants were small, and it were the fastest sport among the non-motorized sports, which was recognized by the participants as the charm of bobsled activity. Second, the bobsled participants were experiencing physical trauma and stress such as injury, fear of injury and rehabilitation, or mental stress such as trauma experienced when the sled overturned. However, in the process of persevering in such a situation and overcoming stress, the participants improved their self-esteem and confidence. Third, the record was a tool that

gave strong feedback to bobsled participants. Participants felt a sense of accomplishment when completing an arena course or improving their record. Fourth, the bobsled participants paid a lot of attention to the start record. Efforts were made to acquire specialized skills or knowledge to improve records. In addition, the participants gathered information and acquired knowledge related to bobsled through long-term experience and continuous effort. They were satisfied with their appearance.

Recommendations for future research while conducting this study is as follows: First, it would be important to look at measures or policies to improve the current low accessibility in order to develop bobsled as a popular and daily leisure activity. Second, it will be necessary to explore the aesthetic value of only the bobsled sport through comparative analysis of the charms of the existing extreme sports or adventure sports and the attractive factors of the bobsled sport.

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