Investigation of Traditional Recreational Games in the Squid Game Series: A Semiotic and Content Analysis

Squid Game Dizisinde Yer Alan Geleneksel Rekreatif Oyunların İncelenmesi: Göstergebilimsel ve İçerik Analizi

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ABSTRACT

Television series and films serve as mediating platforms for individuals who seek to manage their leisure time more effectively and engage in voluntary communication that enhances life satisfaction and motivation. In this context, the Squid Game series provides an alternative leisure option that intertwines considerations of time, money, and cultural values. This study aimed to identify traditional recreational games depicted in the Squid Game series and analyze their cultural and symbolic meanings. Additionally, using data from Google and Naver search engines, as well as from Netflix, the study sought to determine which children's games depicted in the series garnered the most viewer interest. For these purposes, nine traditional children's games were identified. Among these, the 'Sugar Honeycomb Game' and 'Dalgona Candy' emerged as the most frequently searched on Google, while the 'Red Light Green Light Game' and the 'Squid Game Doll' were most frequently searched on Naver. These findings were corroborated by Netflix viewership statistics. Moreover, children's games are recognized as effective tools for therapeutic recreation, potentially supporting individuals' physical, mental, and emotional health, reducing stress, and enhancing social interaction. Based on these insights, the study offers recommendations for incorporating traditional children's games into therapeutic recreation programs.

Keywords: Therapeutic Recreation, Recreational Games, Online Series, Semiotic Analysis, Content Analysis

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ÖZ

Televizyon dizileri ve filmler, boş zamanlarını daha etkili bir şekilde yönetmek ve yaşam memnuniyetini ve motivasyonu artıran gönüllü iletişimde bulunmak isteyen bireyler için arabulucu platformlar görevi görmektedir. Bu bağlamda, *Squid Game* dizisi, zaman, para ve kültürel değerlerin iç içe geçtiği alternatif bir boş zaman seçeneği sunmaktadır. Bu çalışma, *Squid Game* dizisinde tasvir edilen geleneksel eğlence oyunlarını belirlemeyi ve bunların kültürel ve sembolik anlamlarını analiz etmeyi amaçlamaktadır. Ayrıca, Google ve Naver arama motorlarından ve Netflix'ten alınan verileri kullanarak, dizide tasvir edilen çocuk oyunlarının hangisinin en fazla izleyici ilgisi çektiğini belirlemeyi amaçlamıştır. Bu amaçlar doğrultusunda, dokuz geleneksel çocuk oyunu belirlenmiştir. Bunlar arasında, Google'da en sık arananlar 'Şeker Kalıbı Oyunu' ve 'Dalgona Şekeri' olarak ortaya çıkarken; Naver'da ise en sık arananlar 'Kırmızı Işık Yeşil Işık Oyunu' ve 'Squid Game Bebeği' olmuştur. Bu bulgular Netflix'in izlenme verileriyle de doğrulanmıştır. Ayrıca çocuk oyunları, potansiyel olarak bireylerin fiziksel, zihinsel ve duygusal sağlığını destekleyen, stresi azaltan ve sosyal etkileşimi artıran terapötik rekreasyon için etkili araçlar olarak kabul edilmektedir. Bu görüşlere dayanarak, çalışma geleneksel çocuk oyunlarını terapötik rekreasyon programlarına dahil etmek için öneriler sunmaktadır.

Anahtar Kelimeler: Terapötik rekreasyon, Rekreasyonel oyunlar, Çevrimiçi diziler, Göstergebilimsel analiz, İçerik analizi

Giriş

Squid Game is a South Korean online drama series that premiered on Netflix on September 17, 2021. The series follows 456 financially desperate individuals who compete in traditional children's games for a substantial cash prize. The series consists of nine episodes, featuring games that involve elements of reasoning and chance. The main characters of the drama are Yeong-su Oh - Oh Il-nam (Player 001), Lee Jung-jae - Seong Gi-hun (Player 456), Park Hae-soo - Cho Sang-woo (Player 218), Anupam Tripathi - Abdul Ali (Player 199), HoYeon Jung - Kang Sae-byeok (Player 067), Heo Sung-tae - Jang Deok-su (Player 101), Kim Joo-ryoung – Han Mi-nyeo (Player 212), Lee Yoo-mi - Ji-yeong (Player 240), Ja Hyeong Kwok (Player 278), Gong Yoo (Marketer), Wi Ha-joon - Hwang Jun-ho (Police officer) (Netflix, 2021).

The central theme of the series revolves around Oh Il-nam (Player 001), who, while battling a brain tumour, wishes to relive his childhood by playing games, hoping to experience the joy and simplicity of those times. In the series, it is revealed that the games were created based on Oh Il-nam's question *What can we do for fun?* (Netflix, 2021). The design of the games based on this question enables a therapeutic recreation framework for analyzing the series' content.

What is therapeutic recreation? Therapeutic recreation (TR) refers to recreational services provided to special groups (e.g., patients, individuals with disabilities, the elderly, and those facing restrictive conditions or social exclusion) to eliminate and/or reduce physical, mental, and social disadvantages through enjoyable activities such as games, competitions, and other recreational practices (Carter & Van Andel, 2019, p. 3; Kunstler & Daly, 2010, p. 4). According to another definition, therapeutic recreation aims to enhance a person's well-being, general health, or quality of life by purposefully utilizing or create leisure time (Robertson & Long, 2008, p. 4). It is believed that

the first therapeutic recreation practices began between 1854 and 1856, when Florence Nightingale established a hospital cafeteria that hosted music, theatre, book readings and games (Çetiner, 2019, p. 408).

1. Literature Review

An examination of the literature reveals that research on semiotic and content analysis primarily focuses on the online representation of destinations, video games, advertisements, tourism posters, promotional materials, and TV series and films. In non-tourism sectors, researchers such as Agustini et al. (2017), Aşçı (2018), Damayanti et al. (2021), Suryana and Merrita (2021) analyzed various images such as lipstick, women, Mentos shown in advertisements using content and semiotic analysis. TV series or films communicate their intended messages to audiences using semiotic, visual, symbolic and linguistic tools (Tutar, 2022, p. 17). Researchers such as Choet al. (2018), Aisyah (2020), Daniela and Faoth (2021), Azeharie et al. (2022), Fajariansyah (2023) employed content and semiotic analyses to examine visual materials in TV series and films. In tourism and related sectors, researchers such as Pennington and Thomsen (2010), Hunter (2016), Gou and Shibata (2017), Lian and Yu (2017), Lourenção et al. (2020), Paraskevaidis and Weidenfeld (2021), and Li et al. (2023) have analyzed the destinations image through photographs representing various destinations using content and semiotic analysis. Similarly, researchers such as Güdekli et al. (2016), Sel and Aktaş (2019), and Kırıcı-Tekeli et al. (2022) have analyzed tourism posters or promotional posters using content analysis and semiotic analysis methods. A comprehensive literature review of semiotic and content analyses applied to traditional recreational games offers deeper insights into the cultural, social, and psychological dimensions of these games. A closer examination of a few studies reveals the following:

Choi et al. (2007), conducted a content analysis on online images of tourism websites and online travel blogs of the Macau destination. In this regard, it has been concluded that the online destination image of Macau varies on various sites where information is collected.

Uslu, Karavelioğlu and Gumusgul (2020), highlight the importance of traditional recreational games for managing time during the COVID-19 pandemic. Findings suggest that traditional games, which can be practiced at home, may enhance physical activity levels and strengthen the immune system.

Rahman et al. (2020), examine traditional Indian folk games, identifying their potential therapeutic benefits for children with neurodevelopmental disabilities. The research concludes that folk dances serve various functions and have the potential to be used for therapeutic intervention in children with neurodevelopmental disabilities.

Uygun et al. (2021), aimed to examine the gastronomic elements in the Love 101 series on the Netflix platform. In this direction, ten visual indicators in the series were analyzed through semiotic analysis. As a result of the research, it has been determined that the gastronomic items in the series and the items in the promotional films of the Ministry of Culture and Tourism of the Republic of Turkey are similar, and at the same time, the emotions desired to be given in the promotion and the emotions felt in the series are similar.

Tutar (2022), tried to determine whether the Squid Game series can be watched from the perspective of Social Darwinism through semiotic analysis. In this regard, it has been concluded that Social Darwinism supports neoliberal socio-economic inequality. It has also been found that the weak are reflected with metaphors of brutality, greed and cruelty.

Sharma et al. (2023), investigated the interactions of game players with other players and non-player characters, their emotional solidarity within the game, destination image and intentions to visit real destinations. In this regard, it was concluded that the players were in emotional solidarity with other players and non-player characters and had the intention of visiting real destinations.

Ece, Ünsal and Çalık (2023), comprehensively examines traditional recreational activities practiced for children in Turkish culture. It emphasizes the impact of active participation in play and recreational activities on children's development.

Raval (2023), study delved into the significance of traditional outdoor games in fostering cognitive and social development among children. The findings indicated that these games provide a rich and distinctive environment for children to engage in social interactions, thereby enhancing their cognitive and social competencies.

Satılmış, Bilgin and Ödemiş (2023), investigates the effects of traditional street games on the social skills, psychological resilience, and hope levels of foreign children. A sample of 51 foreign-born children was recruited to provide data for this study. The findings reveal that these games positively contribute to the social and psychological development of children.

Traditional recreational games featured in online series serve as more than mere entertainment; they are crucial elements imbued with profound meanings and various functions. These games play a significant role in several key areas (Carter & Van-Andel, 2019; Teke & Avşaroğlu, 2020; Uslu, Karavelioğlu & Gumusgul, 2020; Rahman et al. 2020; Güncan, 2021; Kulakoğlu Dilek, 2022; Karakayalı, Kanca & Uçar, 2023):

Preservation and Dissemination of Cultural Heritage

- Identity Formation: These games offer valuable insights into a society's history, values, and customs. When revied in online series, they can foster a stronger sense of cultural identity among viewers.
- Memory Function: Forgotten games, when showcased in series, are transmitted to future generations, ensuring the preservation of cultural memory.
- Tourism Attraction: Traditional games, featured in series can contribute to a region or country's tourism industry. Viewers may be motivated to travel to these locations to experience the games they have seen on screen.

Strengthening Social Bonds

- Reason to Gather: Game scenes in series provide an opportunity for families and friends to come together and enjoy quality time.
- Shared Values: These games facilitate the convergence of individuals from diverse age groups around common values, strengthening social cohesion.

Educational Benefits

- Historical Knowledge: Games in series provide information about historical processes, traditions, and beliefs.
- Social Skills Development: They contribute to the development of social skills such as cooperation, competition, and respect.
- Linguistic and Cultural Enrichment: Games from various regions enhance viewers' awareness of linguistic and cultural diversity.

Psychological Benefits

- Stress Reduction: Playing games can be an effective way to relax and unwind after stressful or tiring days.
- Happiness Hormones: The endorphins released during gameplay boost feelings of happiness and pleasure.
- Imagination Development: Games in series encourage viewers to use their imagination and create different scenarios.

In conclusion, traditional recreational games featured in online series offer numerous cultural, social, educational, and psychological benefits. These games preserve societal memory, strengthen social bonds, and contribute to individual personal growth.

2. Methodology

Secondary data obtained from Google, Naver and Netflix were used within the scope of the research. Qualitative research method and descriptive research approach were adopted. This research was limited between September 17, 2021, and September 17, 2023. The limited number of academic studies on this subject, the scarcity of field studies, the density of data in the internet database, the constant renewal of time-dependent data, time limitation, etc. were the limitations of the research.

In this study, while dividing into sections for the purpose of using semiotic analysis and content analysis, the nine-episode first season names used in Netflix production were preferred. The images related to children's games shown in each section were determined and stored. These sections were re-classified according to the obtained images. Series episodes that did not include children's games were not included in the study. As a result of the selected images, nine children's games (Toy Grabbing Machine Game, Ddakji Game, Red Light Green Light Game-Squid Game Doll, Sugar Honeycombs Games-Dalgona Candy, Rope Pulling Game or Tug-Of-War, Marbles Game, Glass Bridge Game, Coin Flip Game and Squid Game) were determined and semiotic analysis was applied. Secondly, an online image search was conducted for the ten selected children's games on Google and Naver search engines. While searching, in order to prevent language bias on Google and Naver search engines, both English and Korean names were taken into consideration, and separate images were collected and content analysis was conducted. As a result of the search, 7070 images were obtained on Google and 3568 images on Naver. Finally, the results of the two analyses were used to determine which of the children's games depicted in the series attracted the most viewer attention, using data from Netflix.

3. Findings

This section presents the semiotic and content analyses of the identified games, along with the frequency of images obtained from various search engines. Finally, the findings are also associated with Netflix data.

3.1. Semiotic analysis of the Squid Game

Semiotics is based on the theory proposed by F. De Saussure (1916). Later, this theory was developed by the French linguist Roland Barthes (Çakar, 2010, p. 35). The most crucial stage of semiotic analysis is the signification process, in which the relationship between the signifier and the signified is established, including the concepts of "*denotation*" and "*connotation*" (Aiello, 2020, p. 370; Penn, 2000, p. 230-240). At the level of denotation, which is the first level of signification, the meaning is clear and is understood in the same way by everyone at this point. In other words, it denotes universally accepted and indisputable facts. The second level of signification is connotation. Secondary concepts, images, subjective attitudes, and secondary emotional meanings that are not perceived or undetectable in the same way by all viewers are called connotations (Cullum-Swan & Manning, 1994, p. 465-470; Hunter, 2016, p. 223). In this regard, the selected ten visuals from the Squid Game series were analyzed through semiotic analysis.

Table 1: Red Light Green Light 1

Analysis

Indicator: Seong Gi-hun trying to get a toy from the toy machine for his daughter's birthday, Commercial recreation

Showing: Game Center, Toy Machines, Toys, Man, Child

Shown: Playing the Toy Grabbing Machine Game, Joy, Happiness, Entertainment, Gain

Straight meaning: In the image in Table 1; It is seen that the character of the lead actor, Seong Gi-hun, wins a gift for his daughter's birthday with the help of a child in the game center.

Side meaning: Coins are thrown into the machine and the joystick is turned for a few seconds. It is then moved to the right, left, up and down. The button that raises the crane is pressed. The claw is moved in the desired direction, and the toy is aimed at. If the toy falls onto the door, it is a matter of luck. The claw machine was invented in 1893, inspired by the machines used in the construction of the Panama Canal (Yoon, 2017). However, it was released as a game machine in

1926. The claw machine known today was invented in 1930 by carnival operator Willam Barlett. Later, with the acceptance of the Johnson Act, also known as the Transport of Gambling Devices Act, in 1951, these machines were seen as gambling machines and were banned. In 1974, the provisions of the law were relaxed (VanHooker, 2019). In the early 1980s, it became widespread as Europe and Japan began to export machinery.

Table 2: Red Light Green Light 2

Analysis
Indicator: Playmaker and Seong Gi-hun playing Ddakji at the train station, İndoor recreation
Showing: Red and Blue Ddakji Paper, Men, Woman, Spectator, Suit, Train Station, Tile
Shown: Playing Ddakji Game, Ambition

Straight meaning: In the image in Table 2; The quarterback offers to bet Seong Gi-hun character by playing the Ddakji game. By choosing the blue card, Seong Gi-hun wins the game.

Side meaning: Ddakji is a game played with origamis, which is formed into squares by folding paper. This game is played by placing a piece of paper on the ground and having the opponent hit it with another piece of paper, then turning the piece of paper over (Federation of Korean Cultural Center, 2018). It can also be thought of as the equivalent of the game *Taso*.

Table 3: Red Light Green Light 3

Analysis
Indicator: Players playing traditional children's game against time in open area, Outdoor recreation
Showing: Players, Doll, Employees or Soldiers in Pink Overalls, Clock, Player Numbers, Border Line, Tree, Green, White, Land, Sky
Shown: Playing Red Light Green Light Game and Squid

Straight meaning: In the image in Table 3; While Squid Game Doll was saying 'green light-red light', out of 456 players advancing, 201 players were able to cross the finish line in five minutes.

Side meaning: There is a distance of at least 5 meters between the traffic police selected for the game and the children at the starting line. The game starts with the traffic police singing *the green light-red light song* (Netflix, 2021). When the police shout "*green light*", the children run toward the police, and when they shout, "*red light*", the children stop. However, if anyone moves during the red light, they return to the starting line, and this process continues until the first child reaches the traffic police. The game ends with the winner being the new cop. The aim of this game is to strike a balance between moving quickly and stopping immediately, as well as reaching the traffic police (Wukihow, 2023). It can be said that this game is similar to the "*Sculptures*" or "*Grandma's Footprints*" games played in England (Gottamentor) and the "*Midwife Tura 1 2 3*", "*Old Cushion*" and "*What time is it mom?*" games played in Turkey.

Table 4: The Man with the Umbrella

Analysis
Indicator: Removing the candy from the mold without breaking the shape in the park, Outdoor recreation
Showing: Children's playground, Slides, Star, Umbrella, Circle,   triangle, Candy container, Needle, Employees or Soldiers in Pink Overalls, Han Mi-nyeo, Players, Pink, Green, Yellow
Shown: Playing Sugar Honeycombs Games and Dalgona Candy

Straight meaning: In the image in Table 4; 108 players passed the round by scraping the shapes with patterns on them and removing them from the mold within 10 minutes. Some players even took advantage of the light and the melting of sugar to win.

Side meaning: This game involves trying to remove the dalgona candy, which is made with sugar and baking soda and poured into shaped molds, from the sugar mold with the help of a needle, without breaking it (HABERNEW, 2021). According to the rules, the player chooses one of four shapes: triangle, round, star, and umbrella.

Table 5: Stick to The Team

Analysis
Indicator: Winning of a group by pulling the rope in groups, Sports recreation
Showing: Road, Rope, Players, Employees or Soldiers in Pink Overalls, Bridge, Light, Lamp, Yellow, Green
Shown: Playing Rope Pulling Game or Tug-Of-War

Straight meaning: In the image in Table 5; For the tug-of-war game, the players are divided into 8 teams of 10. To determine which team would start the game first, lots were drawn (Netflix, 2021). As a result of the draw, the 1st and 7th teams competed in the first round, and the 4th and 5th teams competed in the right and left towers in the next round. In the series, the 1st group won the game with strength, while the 4th group won the game due to the tactical moves of player 1 and player 218. At the end of the game, 40 people won.

Side meaning: According to the Korean National Culture Encyclopaedia, the game of tug-of-war has its origins in a battle between Wu and Cho. It is believed to have first been practiced as an agricultural ritual in the 15th century. The reason for this is that the original name of this game is "발하(拔河) Balha", which is played along a river and directly reveals its relationship with agriculture. Even the ropes used in the game are made of straw. According to Korean culture, the rope is likened to a snake or dragon (Naver, 2021). In 2015, Cambodia, Philippines, Republic of Korea, and Vietnam co-listed the game as part of Tugging rituals and games on the representative list of intangible cultural heritage (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2023).

According to Player 001's tactic, the leader (Player 456) plays an important role in this game because the players behind the leader look at the leader's back. At the end of the rope is a reliable person (Player 199), like the anchor of the ship. Players line up left and right, leaving the rope in the middle. Then they tuck the rope under their armpits, bringing both feet straight forward. Finally, holding on for the first ten seconds, they lean back to reach the ground. When the opponent loses their balance, they start to pull. According to Player 218's tactic, after all these stages, all players walk three steps forward, and when the opposing team loses their balance, they start pulling backwards again, and the game is won.

Table 6: Ggambu 1

Analysis
Indicator: Neighbourhood odd or even game, Outdoor recreation
Showing: Marbles/Taw, Players, Cho Sang-woo, Abdul Ali, Green
Shown: Playing Marbles Game Type 1

Straight meaning: In the image in Table 6; Each player is given a bag containing 10 marbles. Players play marbles on a platform reminiscent of the 199 and 218 neighbourhoods. They try to guess whether the number of marbles they are holding is odd or even. At the end of the game, the player wins by cheating against Player 199 who do not know the 218 games.

Side meaning: There are about nineteen different variations of the marble game (Casbergue & Kieff, 1998, p. 146). Although there are different types of gameplays, odd or even is preferred in this version of the marble game. First, the player chooses a partner. Then the player holds the marbles they want to win from her/his rival, closing them in their hands. They try to guess the number of odd and even marbles in the opponent's hand. The losing player gives the player whose guess was correct marbles from their own hand, matching the number of marbles the winning player has. In other words, the losing player gives as many marbles as the number of bets to the winner.

Table 7: Ggambu 2

Analysis
Indicator: Throw marbles in the pit, Outdoor recreation
Showing: Jang Deok-su, Player 278, Employees or Soldiers in Pink Overalls, Neighbourhood, Door, Hole, Marbles/Taw, Roof, Bicycle, Soil, Barrel, Flowerpot, House, Courtyard
Shown: Playing Marbles Game Type 2

Straight meaning: In the image in Table 7; Players 101 and 278 play a game of inserting marbles in the nook. Player 101 wins this game.

Side meaning: This game can be played on carpet, earth or a marble floor. A starting line is drawn first, or a point is marked to throw from. Then, a circle can be drawn with chalk at a distance

where the marble can enter, or a nook can be opened manually. The players stand on the line and try to throw their marbles into the nook. The game is won by the players who successfully gets their marble into the nook.

Table 8: Vips

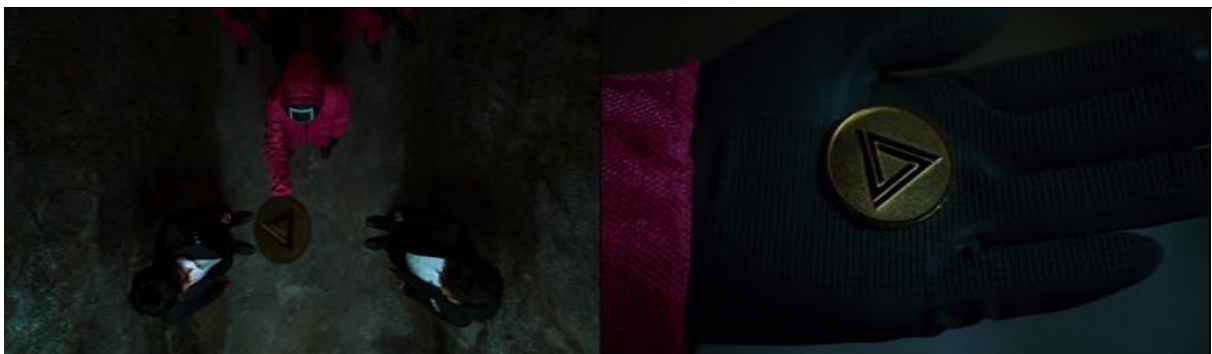| Analysis |
| --- |
| Indicator: Crossing by jumping over glass, İndoor recreation |
| Showing: Jang Deok-su, Seong Gi-hun, Cho Sang-woo, Kang Sae-byeok, Players, Pine, Number, Circus, Tent, Red, Pink, Green, Clock, Lights, Stairs |
| Shown: Playing Glass Bridge Game |

Straight meaning: In the image in Table 8; Other players worked to cross the bridge when a player, who is a glass master, sees the reflection of the tempered glass in the light. Players have chosen numbers again according to the order in which they will play. Only three players (456, 218, and 067) who chose the trailing numbers 14, 15 and 16 made it to the finals.

Side meaning: Between the entrance and the exit of the room are two bridges side by side, each consisting of eighteen glass panels. To win, players must cross these bridges within 16 minutes and reach the other side of the room. However, some of the glass in the bridges consists of tempered glass, which can withstand weight, while some consist of ordinary glass, which breaks easily. The play also resembles tightrope walkers in circus tents. On the other hand, it is thought to be similar to the Turkish traditional children's game "*seksek*" or the Hungarian traditional children's game "*ugroiskola*".

Table 9: One Lucky Day

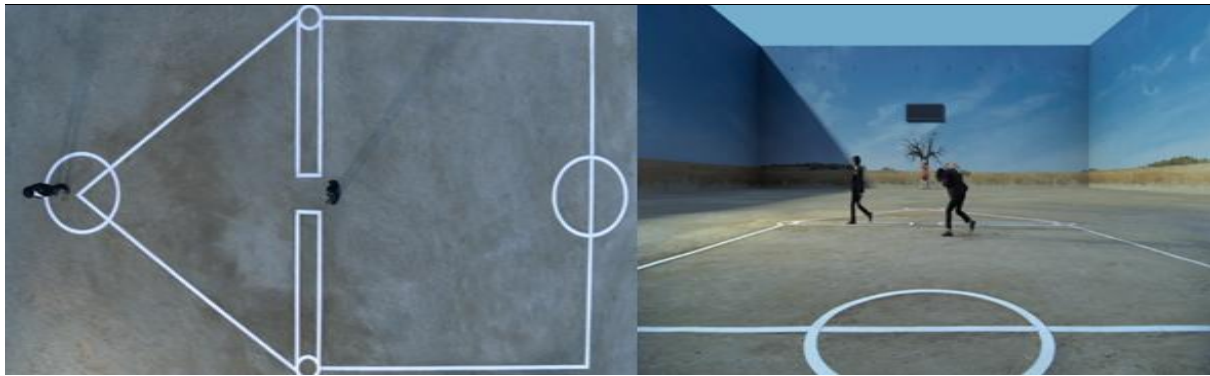| Analysis |
| --- |
| Indicator: Evaluation of free time with the game of chance, Simple recreation |
| Showing: Squid Game money, Tossing a coin, Cho Sang-woo, Seong Gi-hun, Employees or Soldiers in Pink |

| Overalls, Tuxedo, Glove, Cellar |
| Shown: Playing Coin Flip Game |

Straight meaning: In the image in Table 9; For the final game, players 218 and 456 flip a coin to determine offense and defense. The faces of the coin to determine offense and defense. Player 456, who chooses the triangle side, gains the right to choose first and selects the offensive role, while player 218 takes the defensive side.

Side meaning: This game derives its name from the terms used to describe the two sides of the coins. One person tosses the coin and the other person makes a guess while the coin is in the air. The person who tosses the coin catches it mid-air. The individual whose guess is correct wins the game. The act of tossing a coin to determine between two possible outcomes has been practiced for thousands of years. The history of this game, which has been played for centuries, can be traced back to a game of chance called "*navia aut çaput*" (ships and heads) during the Roman period. The name of the game originates from the two-faced Roman god Janus. In Peru, this game is called "*cara o sello*" (face and seal), while in England it is referred to as "*cross and stake*". The tradition of naming the game after the shapes on the coins in the past continues to this day. According to the literature, some researchers suggest that this game originated in Ancient Greece, where children would cover one side of a shell with black pitch, leave the other side white, and then toss it into the air.

Table 10: One Lucky Day

| Analysis |
| Indicator: Attack and defensive team getting rid of blocks, Outdoor recreation |
| Showing: Line, Field, Cho Sang-woo, Seong Gi-hun, Clock, Doll, Triangle, Square, Round |
| Shown: Playing Squid Game |

Straight meaning: In the image in Table 10; Player 456 starts the game by hopping on one foot from the attacking area (the initial circle). The player continues hopping on one leg until reaching the neck of the squid. Player 218, on the defense, attempts to stop them. However, player 456 ultimately wins the game.

Side meaning: The objective of the Squid Game, which lends its name to the series, is to prevent the attacking team from advancing. This game is also known as "*Army Oden*" (육군오뎅) or "*Squid Dalguji*" in Korea. To play the Squid Game, a shape consisting of squares (body), triangles, and

circles (head) is drawn on the ground. The game is divided into two roles: offense and defense. The offensive team starts in the circle (head) of the figure, while the defensive team positions itself in the triangles and squares (body). The attacking team begins by hopping on one foot. If a player successfully passes through the narrow rectangle (a passage between the triangle and the square), they gain the right to walk on both feet. Any player whose body part, aside from the foot, touches the ground is eliminated. The defensive team, on the other hand, can walk on two legs outside the lines if they move through the gaps between the triangle and the square on either side. The defending team wins by entering the circle beneath the squid's body and reaching the attacking circle.

3.2. Online visual content analysis according to the Squid Game connotation

Content analysis, is a systematic method for identifying significant themes or symbols a given work. (Starosta, 1988, p. 359). In other words, it is a technique used to examine the content of various data sources (Harwood & Garry, 2003, p. 479). The research problem was defined, the universe was determined and the sample was selected. For this research, online images were collected using various keywords to determine which terms yielded the highest number of results. Images retrieved for each keyword were saved in separate folders to facilitate systematic content analysis. All images not depicting the recreational games featured in the Squid Game series were excluded. A coding table was created. Percentage and frequency calculations were made for each category created using the Microsoft Excel program.

In this research, recreational games depicted in the Squid Game series were analyzed through online images collected between September 17, 2021, and September 17, 2023. The data obtained from this analysis were subjected to content analysis. The findings derived from the content analysis are presented in the table 11. Within the scope of the research, nine recreational games appearing in six episodes of the series were identified, and these games were searched using two different search engines in two different languages. Table 11 presents the frequency distribution of search results for each traditional game on Google and Naver.

Table 11: Content analysis of recreational games played on the Squid Game									
Series Episodes	Recreational Games	Google (International) ∑i	∑i (7070)	%	100%	Naver (South Korea) ∑i	∑i (3568)	%	100%
	Toy Grabbing Machine Game	128		9,66		2		0,14	
	장난감잡는기계 (jangnangam jabneun gigye)	16		1,22		7		0,52	
	Ddakji Game	257	1324	19,42	18,73	39	1340	2,92	37,55
	떡지게임 (tteogji geim)	170		12,83		386		28,81	
Red Light Green Light	Red Light Green Light Game and Squid	519		39,19		266		19,85	

Game Doll									
	레드라이트그린라이트게임 (mugunghwa kkoci pieot seumnida) 과오징어게임인형 (ojing-eo geim inhyeong)	234		17,68		640		47,76	
The Man with The Umbrella	Sugar Honeycombs Games and Dalgona Candy	1478		85,73		140		21,31	
			1724		24,38		657		18,42
	사탕금형게임 (satang geumhyeong geim) 과 Ppopgi	246		14,27		517		78,69	
Stick to The Team	Rope Pulling Game or Tug-Of-War	1300		56,02		52		13,97	
			2280		32,25		372		10,42
	줄다리기즉 Juldarigi	980		43,98		320		86,03	
Gganbu	Marbles Game	948		95,95		12		2,59	
	구슬게임 (guseul geim)	40	988	4,05	13,98	450	462	97,41	12,95
Vips	Glass Bridge Game	243		50,32		3		0,84	
	유리다리게임 (yuli dali geim)	240	483	49,68	6,83	357	360	99,16	10,08
One Lucky Day	Coin Flip Game	58		21,41		4		1,06	
	동전던지기게임 (dongjeon deonjigi geim)	20		7,38		335		88,85	
			271		3,83		377		10,58
	Squid Game	36		13,28		6		1,61	
	오징어게임 (ojing-eo geim)	157		57,93		32		8,48	

As seen in Table 11, 7070 images were obtained from Google's online images database, and 3568 images were retrieved from Naver's online image database. "*Rope Pulling Game or Tug-Of-War (줄다리기즉 - Juldarigi)*" (32,25%), which is part of the Stick to The Team section in the Google search engine, accounted for 32,25% of the images, making it the most represented game. However, "*Sugar Honeycombs Games and Dalgona Candy*" emerged at the most visually searched game on Google, with 85,73% (1478) of the images. On Naver, the recreational games in the "*Red Light Green Light*" section accounted for 37,55% (1340) of the images. Nevertheless, "Red Light Green Light Game (*레드라이트그린라이트게임 - mugunghwa kkoci pieot seumnida*) and Squid Game Doll (*과오징어게임인형 - ojing-eo geim inhyeong*)" became the most visually searched games on Naver, representing 47,76% (640) of the images. This trend can be attributed to the strong historical roots of

these games, which have been passed down through generations and remain easy to play even in modern times.

3.3. The relationship between Netflix data and search engines

According to Netflix data, 132 million households have viewed at least two minutes of the *Squid Game*. Among these viewers, 89% watched at least 75 minutes of the series (Netflix Research, 2023). Furthermore, 66% of these individuals completed the entire series within the first 23 days. Over the first 28 days, the series accumulated 1,650,450,000 hours of viewership, eventually reaching approximately 2.2 billion hours within a year (Netflix TV, 2023).

The first episode of the series, "*Red Light Green Light*" has a duration of 59 minutes and 42 seconds. The second episode, "*Hell*", which does not feature recreational games and is excluded from the research, runs for 1 hour, 2 minutes and 30 seconds. Content analysis reveals that viewers tend to watch the entirety of the first episode and part of second episode. This may explain why images associated with the "*Red Light Green Light*" section (37,55%) are most frequently searched on the Naver search engine. In contrast, the prominence of the "*Stick to The Team*" section in Google search results may be attributed to the historical and cultural significance of such games, which continue to be played globally. By synthesizing the findings from content analysis and Netflix viewing data, it can be concluded that a direct correlation exists between on-screen representation and audience engagement.

4. Discussion

Despite the rich cultural and historical background of traditional children's games, limited academic studies have examined their role in the context of therapeutic recreation. When examined alongside their depiction in modern visual media, such as television series and films, the existing research becomes almost negligible. The research underscores the importance of reviving traditional children's games that have faded into obscurity, particularly within the context of recreational activities and therapeutic recreation.

When the literature is examined; Choi et al. (2007) and Sharma et al. (2023) concluded that recreational children's games affect the intention to revisit destinations. Uslu, Katavelioğlu and Gumusgul (2020), Rahman et al. (2020), Ece, Ünsal and Çalık (2023), Raval (2023) and Satılmış, Bilgin and Ödemiş (2023) concluded that recreational games have potential therapeutic benefits on individuals. It is thought that this research expands the results of the studies conducted. It is also thought that these games diversify the findings in the literature regarding the protection and dissemination of cultural heritage, strengthening social ties, and educational and psychological benefits. However, unlike Uslu, Karavelioğlu, and Gumusgul (2020), this study suggests that outdoor recreation activities are more effective.

When the visuals were examined as a result of the semiotic analysis, it was observed that five games represented indoor recreational activities, while four games represented outdoor recreational activities. As is well known, all the children's games depicted in the series, except for those listed in Table 1., can be played as outdoor recreational activities. On the other hand, it can be inferred that the series aims to evoke a nostalgic sense of neighbourhood and a connection to the natural

environment. Additionally, it is evident from the visuals that middle-aged and older individuals actively participate in children's games.

The findings, presented through semiotic analysis, online visual content analysis, and interpretive analysis using Netflix data, demonstrate that individuals across all age groups are interested in traditional children's games and that such games can significantly enhance recreational engagement. Recreation, which encompasses activities suitable for individuals of all ages, including those who are healthy or disabled has been shown to increase overall well-being (Tütüncü et al., 2019, p. 113). Games, as a key component of therapeutic recreation activities, help older adults maintain physical fitness by improving their flexibility, coordination and agility, while also enhancing problem-solving skills, reducing stress, contributing to psychological relaxation, and fostering social bonds through various sports activities and outdoor experiences (Öztürk-Karataş & Karataş, 2022, p. 103). In this context, the significance of traditional children's games is re-emphasized, highlighting their potential as a valuable tool for recreational and therapeutic purposes.

Conclusion and Recommendations

This research aimed to identify traditional recreational games depicted in the Squid Game series and analyze their cultural and symbolic meanings. The study is original in that it describes children's games with a broad historical and cultural background by establishing a connection with a recently popular online series. Contributes to the understanding of how traditional games depicted in online series can influence public interest and therapeutic recreation practices.

As a result of the research, the series episode with the most images on Google Search Engine is Stick to The Team (2280 images); the recreational children's game with the most images is Sugar Honeycombs Games and Dalgona Candy (1478 images). The series episode with the most images on Naver Search Engine is Red Light Green Light (1340 images); the recreational children's game with the most images is Red Light Green Light Game and Squid Game Doll's images obtained from the Korean images search (레드라이트그린라이트게임 - mugunghwa kkoci pieot seumnida and 과오징어게임인형 - ojing-eo geim inhyeong) (640 images). In both datasets, The Man with The Umbrella consistently ranked in second place.

In summary, when semiotic analysis, content analysis and Netflix data regarding online visuals featuring traditional children's games from the Squid Game series are considered collectively, it can be concluded that a significant and positive relationship exists between these elements. Furthermore, the subtext within the series highlights the importance of traditional children's games, which can be assessed within the scope of therapeutic recreation and offer potential for encouragement and application.

Media producers can emphasize traditional recreational games to enhance cultural awareness and potentially broaden their use in therapeutic applications.On the other hand, recreation planners can incorporate traditional children's games into therapeutic recreation programs. In future research, various analyses can be made by obtaining the views of the audience or the evaluations of the series' followers on this subject.

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