

Comparison of the Effectiveness of Modern and Traditional Games on Improving Children's Acquired Skills in Two Cultures of Iran and Turkey

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Abstract

Changes in societies and lifestyles have influenced the extrinsic conditions and partially the content of the play. The changes that are happening now are in the world of children's games, namely traditional games until they have switched to more modern games. The purpose of this study was to investigate the impact of traditional and modern games on children's skills in facing them. In order to examine this issue, two countries, Turkey and Iran, which have many cultural commonalities, were chosen as a case study. At first, a collection of the most popular traditional and modern games was examined. After studying all aspects of traditional and modern games, using library resources, six games including three traditional and three modern games were selected. In the second phase, 30 parents randomly were selected (15 Iranian and 15 Turkish, men and women between 35-45). The Repertory Grid Technique (RGT) questionnaire was developed accordingly. The data were analyzed using the RepPlus and Idiogrid software by two distance-based main methods: Cluster Analysis and Principle Components Analysis (PCA). At the end of the study, it was found that 1. Iranian parents pay more attention to traditional games and maintain their values in their children's lifestyles than modern games, 2. The high pace of the modern era's impacts on children's lifestyles in Turkey is more than in Iran, 3. Contrary to the common opinion in most societies about the negative effects of modern games on children's lifestyles, these games can improve many skills in children.

Keywords

Life Style, Children Skills, Traditional Games, Modern Games, Principle Components Analysis (PCA), Repertory Grid Technique (RGT).

Introduction

Importance of Study

Changes in societies and lifestyles have influenced the extrinsic conditions and partially the content of the play (Yazgin, 2021). The changes that are taking place today affect the world of children's games, i.e. traditional games, until they switch to more modern games (Dahniar et al., 2021). Before the advent of technology, traditional games were trendy among the communities, because traditional games only use very simple tools. Over time, the advent of modern games that go hand in hand with technology such as gadgets has changed the way children play games. Many children live in technology-based communities where their exposure to mobile devices is increasing. However, in the current era of globalization, it is inevitable that the influence of gadgets in the lives of children is huge with a variety of applications one of which is the game (Marsh & Mannari, 2015).

Literature Review

Play Definition

Play is a dynamic and vital activity of human life that has persisted throughout history (Yazgin, 2021). The need to play for children is accounted as their deepest and most fundamental nature that can be considered as important as their physical needs (Aghajani Hashtchin, 2011). Play provides both gross and soft motor skills such as physical development and mental development (Majumdar, 2020). Play is the need and activity that is done at an early age because the child acquires a learning experience that contains cognitive, language, social emotional and physical aspects by playing (Melianasari & Suparno, 2018). Playing is an activity that supports children's mental health and helps them establish and develop emotional relationships (ÖNDER, 2018). Play creates a vital role, in forming children's personalities, with all their traits and dimensions (Al-Hadlak, 2013). While playing games, children learn a wide range of social skills. Games also provide children with contexts to learn about their cultures and cultural values (Aypay, 2016). Play will cause children to learn how to adapt to each other, to transact, claim, get the ownership rights, and even capture others' rights and make it appropriate to have effective social communication (Aghajani Hashtchin, 2011). Play can teach children decision-making and problem-solving skills, help them understand strategies, rules and objectives, and improve their judgment and reasoning skills (Majumdar, 2020). Play with parents and peers is a singular opportunity to promote the social-emotional, cognitive, language, and self-regulation skills that build executive function and a pro-social brain (Yogman et al., 2018). Throughout history, children's play has undergone many changes due to cultural, political and socioeconomic factors without losing its merits and importance (Yazgin, 2021). By playing children can get to know the cultures that are around them (Azhara & Sutapa, 2019).

Traditional Games

Traditional children's games are an element of culture as they can affect a child's intellectual development, personality and social life. Traditional games are cultural products of a society that originates from very old ages, grow, and live up to the present time with the supporting community. Traditional games have various backgrounds that are recreational, comparative, pedagogical, and religious. In traditional games, all aspects of children's humanity are nurtured; creativity and the spirit of innovation are manifested. Traditional games become discourse or media for children's self-expression, develop children's brains, generate empathy, build social awareness, and emphasize individuality. Traditional games neither need complex requirements or specifications to play, nor complicated rules or difficult equipment that is used in daily life (Novinda & Haryadi, 2019).

Danandjaja argues that children's traditional games are a form of folklore in the form of children's games, which circulate orally among certain collective members, are in traditional form and are passed down from one generation to another (Alijuk et al., 2014).

Traditional games tend to be creative for children, because in the making of tools as a means of play, they make them themselves and use tools that come from the surrounding environment or are made from natural materials (Dahnir et al., 2021). Playing a traditional game aims not only to develop physical activity but more to cognitive and social abilities (Melianasari & Suparno, 2018). Various efforts should be made to improve children's social skills, especially in the use of traditional games that are full of the meaning of local cultural values (Melianasari & Suparno, 2018). Examining the role of children's games in Turkey in teaching universal values (achievement, benevolence, conformity, hedonism, power, security, self-direction, stimulation, tradition and universalism) is of great importance (Aypay, 2016). While playing well-designed games, children will be more informed about values and develop more moral and richer personalities (Aypay, 2016). In the contemporary age, traditional games could be a way to debate and establish a comparison of knowledge carriers to communicate methodologies of good practices adopted and experiences in the use in the protection, conservation, and safeguarding of cultural heritage. Different intellectual approaches defining traditional games are an expression of a country's cultural background, beliefs, and passions, and reflect the living conditions at the time of their creation (AmbrettiA et al, 2019).

Game Definition

A game can be defined (Oxford English Dictionary, 2016) as *an activity that one engages in for amusement or fun* and games are very important for child and youth development because they contribute to their cognitive, physical, social, and emotional well-being (Batdi, 2017). Games are a kind of sport or entertainment that require participation and competition with oneself and other rivals in order to achieve certain goals and have special rules (Donmus, 2010). Games contain six parameters: Rules, Outcome, Value, Effort, Player's attachment, and Negotiable consequences (Zaphiris & Ang, 2008). Children were able to playfully combine all the knowledge and skills they need in life and demonstrate their skills. The game allows children to get to know and explore their environment, improve their skills through new experiences, express themselves, their feelings and thoughts, communicate with their environment, and adapt to social roles (Gelisia & Yazicib, 2015). Children learn to communicate with each other, share, cooperate, help each other, and solve problems together (Firat, 2013; Goksen, 2014).

Digital and Modern Game

Children of all ages today live in highly media-influenced environments with access to a wide variety of digital electronic devices. Children spend most of their free time interacting with computers and playing computer games (Aghlara & Tamjid, 2011). Modern games are a game that is played by using sophisticated technological tools that are developing among people today (Azgara & Sutapa, 2019). Modern games are kinds of games that use technology in their operations. Smartphones, laptops, and any gadget and electronic media are needed to support and play modern games (Novinda & Haryadi, 2019). Basically, video games give players the opportunity to challenge themselves and learn new skills (Arduini, 2018). Digital media defines modern childhood, but its cognitive effects are unclear. Rapid technological progress has shaped modern childhood. Time spent with digital devices has increased dramatically since the start of our twenty-first century (Bucksch et al., 2016). Digital media offers a range of new experiences that can have both positive and negative effects on children's mental development (Reid Chassiakos et al., 2016). Electronic games have many advantages and disadvantages that affect their users. Al-Hadlak (2013) explained that electronic games develop attention, focus on and activate intelligence. They work on the development of memory and accelerate the thinking process, and develop initiative, planning and logic in children, as well as leading to enlarging the child's imagination.

Media use often encourages passivity and the consumption of others' creativity rather than active learning and socially interactive play. Real learning happens better in person-to-person exchanges rather than in machine-to-person interactions (Yogman et al., 2018). However, when children play modern games, they learn many things faster, such as recognizing letters, numbers and others (Neumann, 2018). Video games seem to be a unique type of digital activity. Empirically, the cognitive benefits of video games have support from multiple observational and experimental studies (Yang et al., 2020).

Cultural Commonalities of Iran and Turkey

The tradition of Iranian and Turkish cooperation continued during most of their respective history. Safavid, Qajar, and Ottoman dynasties are similar in that they are Turkic and nomadic in origin (Hazir, 2015). Both countries displayed moderately low average levels of modernization and subsequently lie close to each other on the cultural map (Figure 1). It is shown that Iran and Turkey have many cultural similarities in the category of Islamic countries, and in addition, due to the proximity of these two countries in terms of geographical location, during different periods, there can be seen cultural, political, and economic exchanges between them. The dimensions of traditional and secular rational values reflect the contrast between societies in which religion is valued and those in which it is not, while respect for divine authority, homeland, and family are closely related, increase (Inglehart & Welzel, 2005). In this research, we have limited the comparison of Iran and Turkey to search for differences and similarities in the field of traditional and modern games and their impact on children's lifestyles.

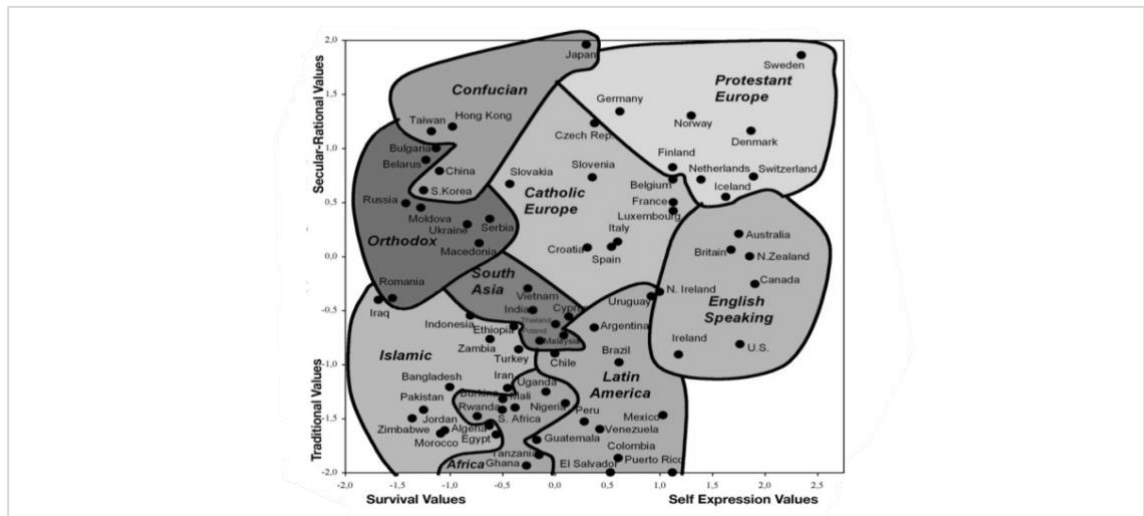


Figure 1: Cultural map (Inglehart & Welzel, 2005).

Methodology

The present study is a deductive mixing method study that created links between qualitative and quantitative issues, the data of which is collected through interviews and RGT technique questionnaires in Iran and Turkey. The aim of this research was to investigate whether modern games have led to a change in the lifestyle and skills of children or not. In order to examine this issue more closely, two countries, Turkey and Iran, which have many cultural commonalities, were chosen as a case study. At first, a collection of the most popular traditional and modern games was examined. After studying all aspects of traditional and modern games, using library resources, and the effect of them on children's skills, based on the research hypothesis and questions, six games including three traditional (five stones, Marbles, Tic-tac-toe) and three modern games (tablet and mobile, Xbox and Jenga) were selected. The modern games selected in this research are common among all countries with modern lifestyles, but in the selection of traditional games, the cultural commonalities of Iran and Turkey were considered. The reason for selecting these 6 games was being popular and known among users.

Participants

In this study, 30 parents were randomly selected (15 Iranian and 15 Turkish), men and women between the ages of 35-45 (With the condition of having a child over ten years old (Table 1). The reason for choosing this group as a case study was their familiarity with both groups of traditional games through their childhood and familiarity with modern games due to their children who belong to the future generation.

Table 1: Demographic information of participants.

Demographic Categories	Frequency IRAN	Frequency TURKEY
<i>Gender</i>		
Male	6	4
Female	9	11
<i>Age (Year)</i>		
25-35	4	3
36-45	11	12

Repertory Grid Technique (RGT) Methods Questionnaire

The Repertory Grid Technique (RGT) is a technique on the border between qualitative and quantitative research, unique in that it respects the wholeness of cognition and does not separate the intellectual from the emotional aspects of the user experience (Fallman & Waterworth, 2010). It is a method of elucidating the so-called personal constructs people employ when confronted with other individuals, events, or artifacts (Hassenzahl & Wessler, 2000). The main advantage of the repertory grid is that the dimensions through which an object is evaluated and its relative importance are directly obtained from the consumer with no interference from the researcher (Hernandez, 2006). An RGT questionnaire was developed according to the standard of other RGT questionnaires. The RGT consists of four major stages: pre-interview, interview, review, and analysis (Curtis et al., 2008). In the Pre-Interview stage, the different types of skills of both groups of modern and traditional games were examined using library resources and reviewing relevant literature. Then 30 items were shown as the main factors in Table 2. After examining the types of skills and strengths and weaknesses of each of the games and combining some skills with each other, finally, 12 items were selected as the main aspects (constructs) evaluated in this method.

Table 2: Features related to plays.

Features and Skills Related to Plays / or Achievable by Games					
1	Self confidence		16	Understandable by all players	
2	Hand-eye coordination-not hand		17	Few rules	
3	Improve social communications/self confidence		18	Pattern recognition	
4	Enhance concentration		19	Cultural (local) values	Universal values
5	Increase weight	Normal weight	20	Simple game/complex game	
6	Cognitive ability		21	Virtual world	Real world
7	Problem solving	Entertainment	22	Develop imagination	
8	Strategic thinking	Risky thinking	23	Enhance physical balance/physical health	
9	Multi task ability	Concentration	24	Can play any time	
10	Competitive	Non competitive	25	Improve creativity	Non creativity
11	Speed essential	Speed inessential	26	Strengthen the muscles	Ordinary muscles
12	Fast and accurate decision making		27	Specific equipment	Simple equipment
13	Develop patience		28	Fast finishing game	Long finishing game
14	Stress		29	Location base	Portable
15	Tolerance practicing	Intolerance practicing	30	Sensory dependent	Sensory independent

In the interview stage, at first, a general explanation was given to the participants about how to answer and score the factors then asked the interviewee to enter ratings 1-5 in the RepGrid for each topic (element) related to specific aspects (constructs). The Context of this questionnaire included aspects of the modern and traditional games (6 topics, 12 properties). In this stage, we try to perform a deeper meaning of an idea by asking *how*, *why*, and *what* questions of the interviewees.

After examining the questionnaires of two countries, Turkey and Iran, data were analyzed using a range of quantitative or qualitative methods. Their results were summarized using the Rep Plus version two and Idiogrid version 2.4 software and the RepGrid has been produced. Although we had 30 individual RepGrids to analyze (15 for Iran and 15 for Turkey), the work presented here focused on just one grid for each country as shown in Figure 2. A figure with color codes allows us to quickly identify high loadings of emergent poles via Visual focusing.



Figure 2: Display Iran and Turkey Grid.

Result

Data were analyzed by two main methods: Cluster Analysis and Principle Components Analysis (PCA). Both of these are distance-based methods, as they expose the degrees of correlation between and among constructs and elements by calculating the statistical distance between them. After collecting data from questionnaires, the data has been analyzed through PCA (principle components analysis) to produce plots that represent relationships between the constructs and elements spatially (Figure 3). PCA is a data reduction technique used to find dimensions of maximum variability in data. Spatial distance between and among elements and constructs suggests how they might be related to each other.

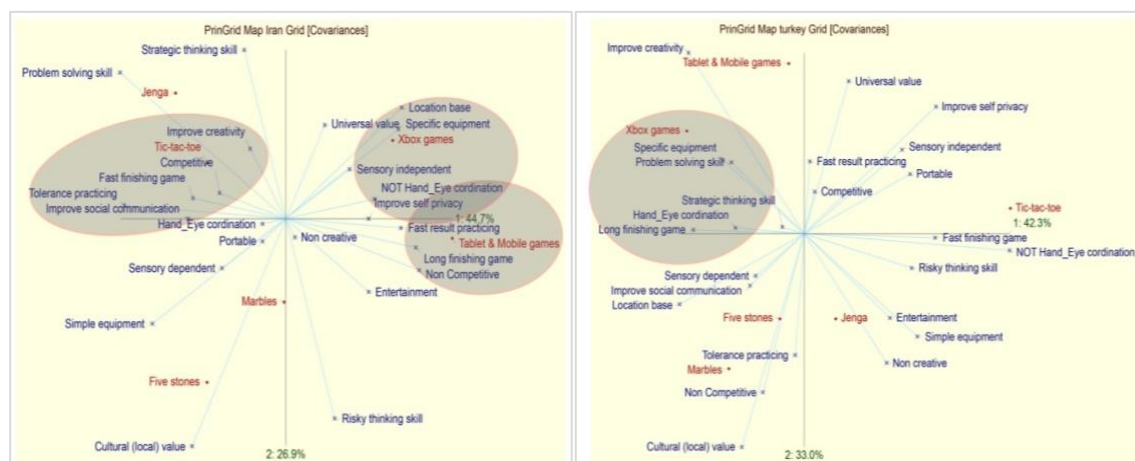


Figure 3: Iran and Turkey PrinGrid Map.

This graphical representation of PCA for Iran and Turkey based on the rating of users to the traditional and modern games indicated that the first component accounts 44.7% for Iran and 42.3% for Turkey of the variance and together with the second, 26.9% for Iran and 33% for Turkey, it will identify 71.6% for Iran and 75.3% for Turkey of the variance in the data.

There were 6 elements used in the study so there was going to be a large variance in the data. We also see in the Iranian participant PCA grid that there are three strong clusters formed close to three elements: tic-tac-toe, tablet and Xbox. Of course, Tablet and X-Box are closely merged so that they can be considered on a common cluster. And in the Turkish participant PCA grid, only one strong cluster was formed close to Xbox elements.

Cluster analysis uses FOCUS grids to show the highest possible correlation between constructs; this is done by reordering the rows and columns to produce a *focused grid* that has the constructs that are statically similar placed beside each other. It also builds a dendrogram (tree diagrams) that illustrates the strength of these relationships, as shown in Figure 4, then we examine the FOCUS grid (Figure 5).

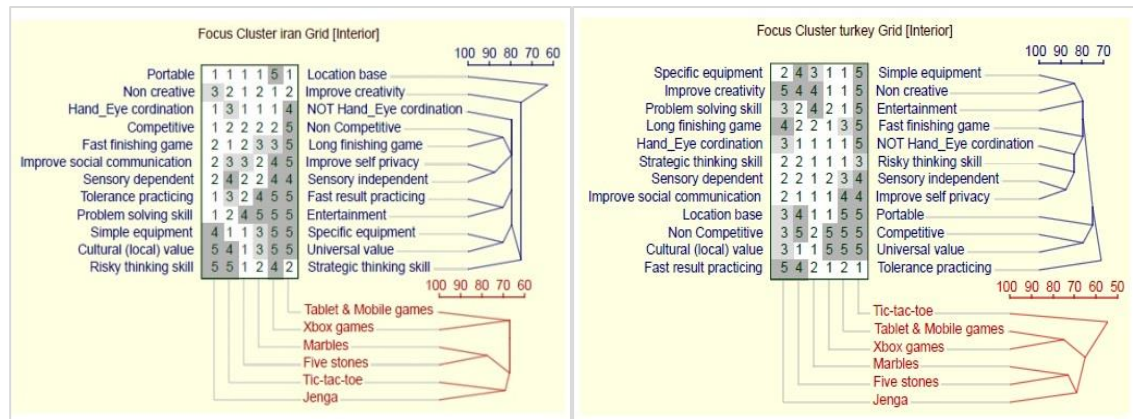


Figure 4: Focus cluster Iran and Turkey grid.

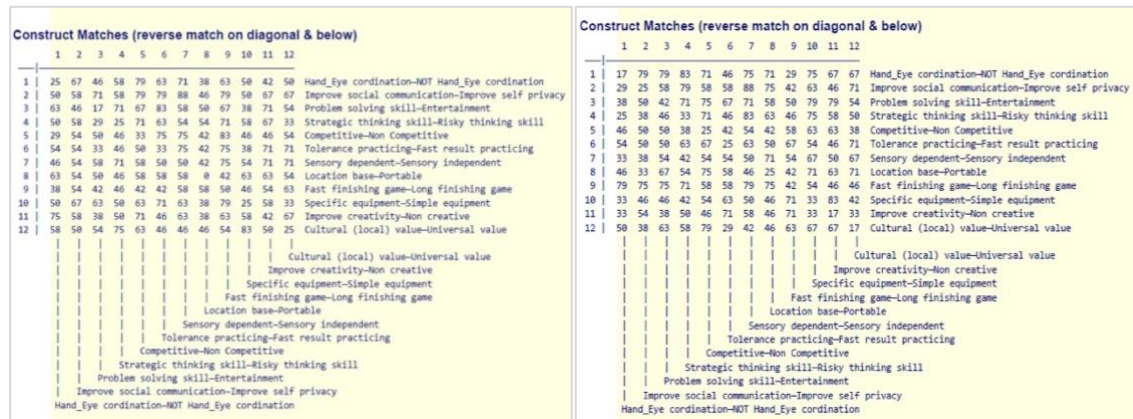


Figure 5: Iran and Turkey cluster data.

We can see three reasonably strong clusters: In Iran {sensory dependent/improve social communication – sensory independent/ improve self-privacy} (90%+: max) •{hand-eye coordination/ problem-solving skill/competitive/ fast finishing game/ tolerance practicing/ simple equipment/ cultural(local) value -non hand-eye coordination/ entertainment/ non-competitive /long finishing game/fast result practicing/ specific equipment/universal value}(80-90%) •{portable/ non creative/ risky thinking skill –location base/improve creativity/ strategic thinking skill} (60-80%: min). This means that the modalities that are described as *sensory dependent* have a propensity to be also described as *improve social communication*. Equally, this participant also sees modalities that are *portable* as *non-creative*. In turkey{sensory dependent/improve social communication – sensory independent/improve self -privacy} (90%+: max) •{ simple equipment/ non-creative/ problem-solving skill/ fast finishing game / hand-eye coordination/ risky thinking skill/ competitive / cultural(local) value - specific equipment/ improve creativity/ entertainment/non hand-eye coordination / strategic thinking skill/ non-competitive/ universal value}(80-90%) •{portable/ fast result practicing –location base/ tolerance practicing } (60-70%: min).

Discussion and Conclusion

Traditional games and modern games both have their own advantages and disadvantages, but both games have their own pros and cons in their applications, apart from that traditional games and modern games are also very effective in stimulating children's motoric development (Traditional Games vs. Modern in Increasing Children's Motor Ability in the 21st Century). Considering that in this research, the opinion of parents in two countries, Iran and Turkey, regarding the impact of traditional and modern games on their children's skills in facing them was investigated, in order to more closely examine the results obtained from these two countries, the basic diagram was defined based on to show the similarities and differences of two cultures better (Figure 6).

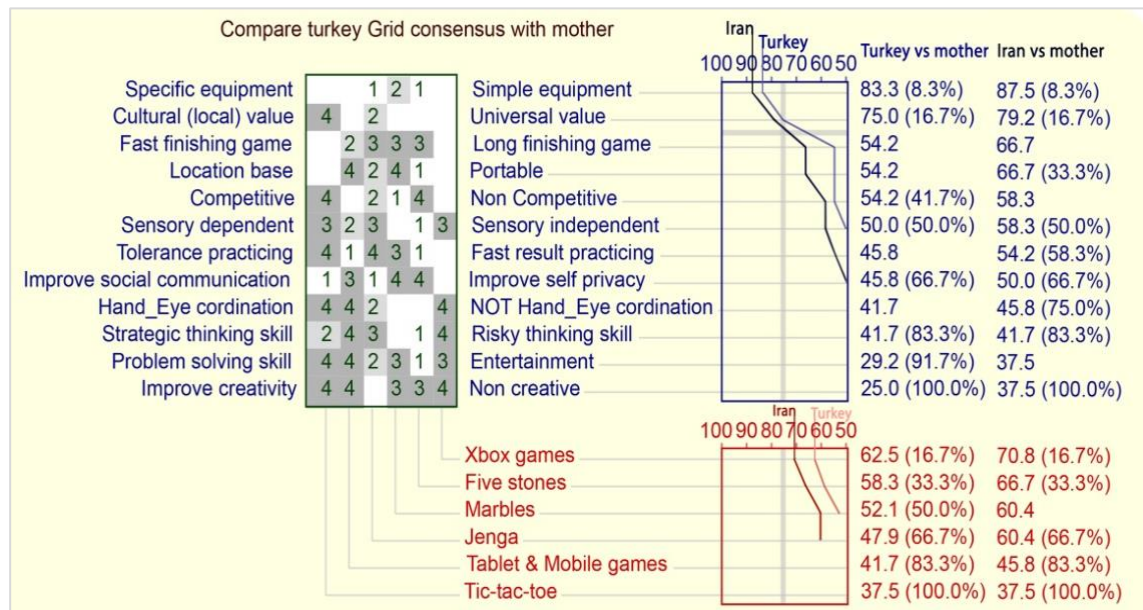


Figure 6: Examining the conformity of children's play style in Iran and Turkey compared to the basic chart.

Regarding the selection of case studies for the questionnaire, the selection of people was accompanied by challenges, because due to the selection of games from two different generations, it was not possible to interview children who have experience playing both traditional and modern games. Therefore, it was decided to choose parents with children in the age range of 10-15 years who had experience playing traditional games in their childhood and could evaluate the impact of modern games on their children's skills. They could answer questions related to both groups of games.

In the clusters section, the degree of compliance of the results obtained from Iran with the base chart is higher than the results obtained from Turkey. Out of the total of 12 clusters, only three clusters of Turkey are closer to the base graph and in nine clusters the results of Iran are closer to the base graph. This shows that Iranian parents pay more attention to traditional games and maintain their values in their children's lifestyle than modern games and believe that traditional games play a significant role in developing children's skills. Also, after examining the elements in the cluster table and comparing the two countries together, we came to the point that the score of modern games in Turkey is higher than traditional games, which shows the high pace of the modern era's influence on children's lifestyles in Turkey. One of the most important reasons for this is Turkey's extensive relations with European and other modern countries, and being influenced by them. By examining the total results, it can be concluded that contrary to the common opinion in most societies about the negative effects of modern games on children's lifestyles, these games can improve many skills in children.

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