

INVESTIGATING CURLING ATHLETES' EFFECTIVE COMMUNICATION SKILLS

INVESTIGANDO AS HABILIDADES DE COMUNICAÇÃO EFICAZES DOS ATLETAS CURLING

INVESTIGACIÓN DE LAS HABILIDADES DE COMUNICACIÓN EFECTIVAS DE LOS ATLETAS QUE HACEN CURLING

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ABSTRACT: This study aims to reveal the relationship levels of the forms of communication of curling athletes. 141 ($X_{\text{age}}=21.32 \pm 2.08$; $X_{\text{sporting age}}=8.91 \pm 2.87$) athletes, 55 women, and 86 men continued active sports in the 2021 Turkish Curling leagues, voluntarily took part in the research. In our research, the "Communication Skills Scale", "Scale of Effective Communication in Team Sports" (SECTS) and a survey, including Demographic information, were applied. The obtained data were analyzed through SPSS 22.00 Statistics Software Package. According to the research results, the correlation values between the scores of the "Communication Skills Scale" (CSS) and the "Acceptance & Positive Conflict Dimension" and the "Scale of Effective Communication in Team Sports" (SECTS) were significantly and positively related. Besides, the genders of the athletes were positively significant within the communication skills scale sub-dimension and the dimensions of discernment and conflict.

KEYWORDS: Communication. Internal communication. Curling. Team.

RESUMO: Este estudo visa revelar os níveis de relacionamento das formas de comunicação dos atletas de curling. 141 ($x_{\text{idade}}=21.32 \pm 2.08$; $x_{\text{sporting idade}}=8.91 \pm 2.87$) atletas, 55 mulheres e 86 homens continuaram ativos nos esportes nas ligas curling Turcas de 2021, voluntariamente participaram da pesquisa. Em nossa pesquisa, a "escala de habilidades de comunicação", "escala de comunicação eficaz em esportes de equipe" (SECTS) e uma pesquisa, incluindo informações demográficas, foi aplicada. Os dados obtidos foram analisados através do pacote de Software de estatísticas SPSS 22.00. De acordo com os resultados da pesquisa, os valores de correlação entre as pontuações da "escala de habilidades de comunicação" (CSS) e a "dimensão de aceitação e conflito positivo" e a "escala de comunicação efetiva em esportes de equipe" (SECTS) foram significativa e positivamente relacionados. Além disso, os gêneros dos atletas foram positivamente

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significativos dentro da subdimensão das habilidades de comunicação e das dimensões de discernimento e conflito.

PALAVRAS-CHAVE: Comunicação. Comunicação interna. Curling. Equipe.

RESUMEN: Este estudo visa revelar os níveis de relacionamento das formas de comunicação dos atletas de curling. 141 (x idade=21.32 = 2.08; x sporting idade=8.91 = 2.87) atletas, 55 mulheres e 86 homens continuaram esportes ativos nas ligas curling Turcas de 2021, voluntariamente participaram da pesquisa. Em nossa pesquisa, a "escala de habilidades de comunicação", "escala de comunicação eficaz em esportes de equipe" (assentos) e uma pesquisa, incluindo informações demográficas, foram aplicadas. Os dados obtidos foram analisados através do pacote de Software de estatísticas SPSS 22.00. De acordo com os resultados da pesquisa, os valores de correlação entre as pontuações da "escala de habilidades de comunicação" (CSS) e a "dimensão de aceitação e conflito positivo" e a "escala de comunicação efetiva em esportes de equipe" (seitas) foram significativa e positivamente relacionados. Além disso, os gêneros dos atletas foram positivamente significativos dentro da sub-dimensão das habilidades de comunicação e das dimensões de discernimento e conflito.

PALABRAS CLAVE: Comunicación. Comunicación interna. Curling. Equipo.

Introduction

In today's sports realm, where the sports culture tends to change rapidly, each coach and each sports club manager needs athletes who can use their talents at their zenith and use those talents for the success of the team they represent. The athletes will bring success by exploiting both their physical and mental features accordingly to time and place. Every trainer engaged in the sports system would have the great pleasure to work with such athletes. So, in all the clubs where they work, they would like to give the athletes who develop those aspects more opportunities.

A team's success is achieved through the joint management of the common pillars such as trainer-athlete, athlete-athlete, athlete-manager, athlete-spectator. Of those components, communication makes up much of the success. If the component distinction is made within itself, especially the coach-athlete relationship within the team also impacts its internal components on success. In contrast, the most critical component is the communication and accord between the athletes on the field. Success will be complete, primarily through the harmonious run of the latter component.

The most important parameter in the athlete's success with internal and external factors is communication (KALKAVAN; KADIOĞLU; KAYHAN, 2021). Communication is the

very basis of success or failure in sports. The worry that institutional or individual damage will be suffered in case of a possible crisis causes more mistakes. However, having ever encountered such situations before requires being more prepared for the situation, and communication has great importance in minimizing the effects of a potential crisis (KOERBER; ZABARA, 2017). The basis of all components begins with and is carried out through communication. As a social entity, human needs communication in all relationships (CHERUBINI, 2019). Likewise, in a social phenomenon such as sports, communication must establish concord within the team (GIDEI, 2019). The most substantial factor for healthy communication is the way you convey your messages rather than what you convey (SELAĞZI; CEPIKKURT, 2014). All the activities we use for communication, within the team or in social life, enhance the power and impact of communication activities (ABAKAY; KURU, 2013). At this point, we can define communication as "the transfer of the message from the source to the receiver on the other side" (GRANT, 2020). When communicating, the mutual interaction of all existing concepts, objects, and phenomena is under question. Every individual uses a structure to communicate. And there are different types of communication (ŞAHIN, 2012). The first form of communication is the one that the individual performs within oneself and stays alone. In this form of communication, the person can process all the data received from the external environment in his own mental continuum and reflect them by either smiling or displaying an angry facial movement as outward reactions together with his own inner speech (AYRANCI, 2018). The second dimension of communication is interpersonal communication. In this form of communication, individuals communicate mutually. It is a form of communication that has two or more individuals at its center. Messages can mutually utilize all environmental factors. Gestures, facial expressions (mimics), and body language of individuals can affect the power of communication (BEKMAN; SONCU, 2020). The third dimension of communication is organizational communication. In this communication, both the individual interacting with the environment and the communication with all the existing groups gain a multifaceted dimension (ECCLES; TRAN, 2012). Communication traces a hierarchical course. Since the communication is affected diversely due to multiple aspects of the messages sent or received, the original message may undergo a drastic change (AYTEKIN, 2020). The highest level of communication is mass communication. Versatile and powerful messages are dispatched to masses having various emotional intensities. At this communication level, the highest one, visual and written communication tools, which are the most important factors affecting communication, impact every aspect of communication. The size of the individual's message

to the masses and its appeal to the emotions of the groups addressed will also increase the power of communication (KOÇ; DUĞAN, 2020).

The concept of communication in sports does not differ from other communication concepts, and it is seen that the use of effective communication tools strengthens the effective communication channels in the social lives of individuals (BOWMAN; MCCABE; ISAACSON, 2012). It is also known that the effectiveness of organizational communication brings success. Using an effective communication model in both intra-team communication and social communication will bring success, and reflecting upon the motivation (WEINBERG; MCDERMOTT, 2002). Unlike other people, they are a special group of people with their routines and social interactions from the athletes' perspective. Particularly intense training, camps, and competitions might affect the athletes negatively in all their relationships (family, team, coach, manager), unlike other individuals in the society. In addition, as the individuals who are challenged by psychological factors the most, playing games in front of the audience, feeling responsible against those vast numbers of people they have never met, being accountable, criticized, and speaking to the media, athletes have a special place. Here, at this point, the athletes have high communication skills, and the psychological skills acquired will affect the motor skills and achievement values. This situation brings together the necessity for athletes, who use the art of communicating effectively, to communicate at a high level. Both the fighting spirit inherent in sports and the constantly changing factors include the interaction and communication of the athletes and a situation reflected in the performance. Athletes are expected to have practical and high communication skills in increasing and maintaining performance.

Communication

The most widely known definition of communication is "processing a message sent from a source and transmitting it back as a reply" (KORKUT, 2005). The transmitted message is evaluated by the receiver and submitted to the other party as a meaningful message. It is the equivalent of the Latin word "Communication" in our language (MILLER, 1963). Humans are stipulated by their nature to interact with their environment to survive. In this relationship dimension, the living thing with which they interact the most is other people. And this situation is indispensable. Communication is a versatile cognitive process (ZOLTAN, 1995). It is not just the words spilling out from the lips. Sometimes, our posture, gesture, eyes, and body language are the factors affecting communication. Naturally, communication is

influenced by all elements connected with the environment. This circumstance causes the communicating person to be affected sometimes by an external sound source, sometimes by a light source, and sometimes by a movement of the interlocutor (JENNINGS; MIRON, 2004). For this reason, the types and forms of communication are of great importance in human life. Communication elements comprise source/sender, receiver/target source, message, and feedback (HAZAR, 2006).

What are the Communication Types?

- Verbal Communication

It is the communication type used by people in all areas of life, especially in their professional lives. There are various communication forms, such as oral presentations, casual conversations, training talks, and telephone conversations. To make those speeches effective and qualified, the individual needs to improve in speaking, listening to the other party, subjecting the received to mental process, and giving feedback. Language is the most substantial element for communication fulfillment, and the most critical communication act is speaking (AZIZ, 2008).

- Nonverbal Communication

It is the form of communication done without speech. During such communication, the individuals express themselves through gestures, mimics, and body language. Starting with the dress worn in this kind of communication, the hands and limbs provide expression by supporting the expression. Understanding body language will help move communication to the upper level (DEDE, 2019).

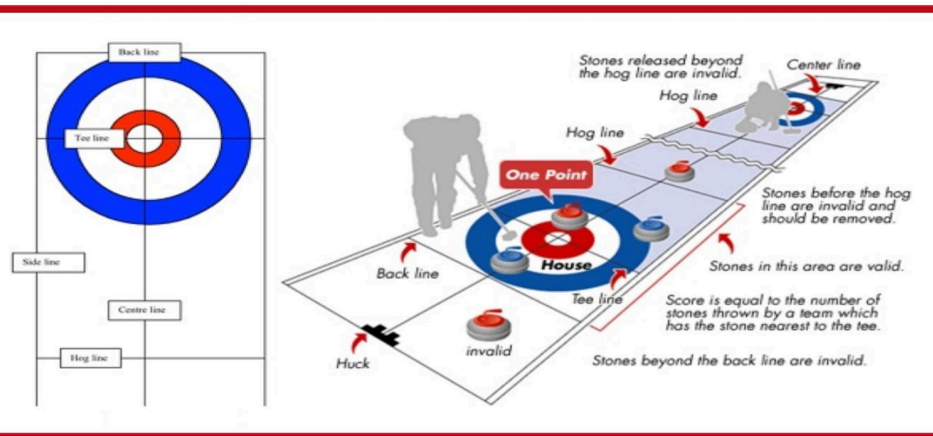
- Written communication

It is the transmission of an intended message to the other source in writing. Reports, letters, media elements, books, and all kinds of written documents can be utilized in this type of communication (BATU; YANIK, 2021).

Curling Sport and Communication

Curling is a game of 4 players that is played on ice. The game is played in an area of 43 m x 4.3 m. Key terminology in the Curling game; the terms of Hack, House (comprises concentric four circles), Back Line, Tee Line, and Hog Line specify the game field.

Figure 1 - Curling



Source: Rich Mond Curling (2021)

Each team consists of 4 players, that 1 captain (Skip), 1 thrower, 2 sweepers. Each player has 2 rights to throw/deliver stones. In the game, the “captain” (skip) is expected to show the point where the stones should be positioned within the area defined as “house.” The athlete who throws the stone is the most critical element that conducts the game and ensures scoring. Classically, curling is called "chess on ice," and the game is one of the sports branches requiring continuous communication. It aims to deliver the stone to the target (house) while sliding along the ice takes place. In curling sport, the stone played with (OSBORN, 2021) is a granite object weighing 19.1 kg. The spirals drawn by the granite stone during its movement on the ice and its advancement on the ice protrusions, called pebbling, are two essential concepts for gaining direction. Primarily, the communication between the thrower (the athlete who delivers the stone) and the skip (captain) plays quite a substantial role in reaching the stone to the desired target (house) (ROOKIE ROAD, 2021). In the game, each player has a designated task in ensuring the stone reaches the target. Communicating and acting as a team on the ice within a 43-meter distance is one of the biggest challenges. Depending on the distance, the communication between the captain and the shooter can be realized through gestures, mimics, movements of the hand or the broom rather than verbally. According to the information above, the way communication occurs is versatile (KIM; SANGHYUK; TAEWHAN , 2017).

Communication Skills That Curling Athletes Should Have

Empathy Skill and Substitution

Empathy can be defined as the ability of a person to see the events from someone else's perspective by substituting oneself for the interlocutor and interpreting them accordingly (PIŞKIN, 1989). In sports, this situation is defined as the ability of all athletes, regardless of position, to perform the final movement during the game by understanding how the movement occurs under what conditions and putting oneself in its place. In the sportive sense, success in competitions comes only if the athletes can understand each other and do this at the competition. Athletes are to figure out what movement skill is ensured through which psychological skills at the moment of a shooting or a movement. Regardless of the outcome, it is the very example of empathy for the person to understand the circumstance created by either positive or negative conditions and know that oneself could have realized the same. The ability to empathize is closely related to the sender's ability to describe the receiver and the receiver's ability to focus on a point to understand the sender. Because the ability to empathize is closely related to the fact that the empathizer is emotional at the time of sending the message and is in a controversial period (DORAK; VURGÜN, 2006). If there is no correct timing in that period, an environment of empathy will not be established. The concept of empathy in sport requires really caring about the other person and being fully sincere (BALÇIKANLI; YILDIRAN, 2018).

Listening Skill

Listening Skill is the receiver's effort to understand what has been conveyed through the message sent. In the absence of listening, deprivation of a healthy communication skill or experiencing communication problems are under question. Just listening to the other person is insufficient in the concept of listening; therefore, the message that has been conveyed needs to be understood correctly, too. A successful communication process will be realized by winnowing out all external factors during the listening process and relieving the intervening problems. The listening process depends on the successful realization of three concepts. In this process, what has been heard, how it has been perceived, and what remains in the memory are important to ensuring successful listening and communication. Studies have shown that sometimes missing a phrase or word at the time of listening causes the meaning behind the message to be missed (AYTAN, 2011).

Persuasion Skills and Speaking Through Effective Communication

Effective in-team leadership is closely related to the fact that the athletes express themselves realistically and use all communication channels effectively while performing this expression. Athletes' levels of communication with each other are among the most influential external factors in achieving success. An impressive speech and a persuasive approach among the athletes within the team are sources of motivation to reach the result. It is emphasized that successful leadership occurs through persuasive communication rather than an imperious approach. The fact that the athletes gather and communicate after the erroneous or successful actions and the result tends to be positive in the next stage indicates the importance of communication (ÖZTÜRK; SÜMER; SOYTÜRK, 2021).

Feedback Skill

The most effective condition for the success of communication-related processes is timely feedback. The circumstance where feedback is the most effective is the one where face-to-face communication takes place. However, as there are approaches characterized by team phenomenon, so there are circumstances described by unhealthy communication. Primarily for the team sports in which numerous players are engaged in or in the game fields where the distances are considerably far, it will not be possible to clearly figure out whether the messages have been perceived correctly or not. In such cases, the assessment of if the communication is effective it should carefully be evaluated by the message sender. For the feedback to be answered in a qualified manner and to influence the result, it is necessary to eliminate the problems between the receiver and the listener source and precisely understand what is conveyed (AKTOP; SEFEROĞLU, 2014).

Timing Skill in Communication

The communication between the sender and the receiver at the right time increases the power of communication. The communication provided right after the action taken by the relevant players at the time of the competition dramatically affects the success. The timing of communication also strengthens the ties among the athletes in moving to the next stage. The communication established at the beginning of the game is more effective than the one realized towards the end of the game. Similarly, messages strengthen communication in a

more meaningful and desired direction when excessive emotions are loaded (BOZKURT; KARTAL, 2008).

The skill of Using Body Language, Gestures, and Mimics Effectively

Communication is more than just the art of reciting words and understanding each other; conveying the message increases the effects of successful communication. In particular, the message's effectiveness is ensured through body language, gestures, and mimics together with the message. The impact of uttered words on communication can be taken up in six dimensions. The first sub-dimension is the utilization of all limbs in the body as a whole. The second sub-dimension is the adjustment of the volume of the voice and speaking speed. In the third sub-dimension, the contact elements, such as touching, are used for communication. In the fourth dimension, adjustment of the private areas and personal distances of the individuals who communicate is questioned. As for the fifth dimension, that the body odors, clothes, and all kinds of accessories being used affect the message transmitted can be stated. Finally, regarding the sixth dimension, the physical environments can be said to be either enhancing or bringing down the effectiveness of the communication (NAVARRO; KARLINS, 2015).

Method

In the present research, it has been aimed to assess both individual and in-team communication skills of outstanding curling players. In other words, it was aimed to reveal the relationship levels of communication skills for the athletes attending the research in terms of gender, sporting age, educational status, competition league, and game position. The research attendees comprised 141 athletes out of 180 elite athletes taking part in the final competitions of the Turkish Curling leagues. The research was carried out to determine the communication levels of the athletes through the evaluation of the attendees' answers and contribute to the literature in the scientific sense.

Population, Sampling, and Data Collection

In the study, demographic features information form, "Communication Skills Scale" (CSS), and the "Scale of Effective Communication in Team Sports" (SECTS) (ALKAN, 2009) were forwarded to the attendees' mobile phones as online surveys, and the attendees were requested to answer them right after the competition. The research study was evaluated

based on the answers given by 141 athletes out of 180 who participated in the Turkish Curling League finals held in May. It was assumed that the sample included in the research had all the universe's characteristics, sufficed to represent the universe. The data obtained comprised honest and rightful answers from the athletes who took part in the research. The obtained data were analyzed through SPSS 22.00 Statistics Software Package.

Demographic Features Information Form: It is the form that contains the personal information of the athletes. The gender, age, sporting age, competition league, position played, and education status were asked in that form.

Communication Skills Scale (CSS): The Communication Skills Scale (CSS) developed by Korkut (1996) was applied. The scale consisted of 25 items and was unidimensional. The inventory was designed on a 5-point Likert scale. However, aiming to increase the sensitivity in the research, it was forwarded to the participants as a 7-point Likert scale by the researchers. Each question was a Likert-type self-assessment tool, stipulating the athletes select a digit, ranging from 1 representing 'Never' to 7 representing 'Always.' The reliability coefficient obtained by the test-repeat method was 0.76, while the internal consistency coefficient was 0.80. The age categories of the high school students who were the target group and the athletes who took part in the research showed similar characteristics.

Data Analysis

In data analysis, nine different statistical analyzes were used, and those analyzes were done on the computer through the SPSS 22.00 statistical software package. Those analyzes were as follows: Frequency, Percentage, Pearson product-moment correlation analysis, Linear Regression Analysis, t-test, One-way Analysis of Variance, Kruskal-Wallis H-test, LSD Post Hoc test, Cronbach Alpha analysis tests.

As a result of the analyzes performed to verify the suitability of the data for the normal distribution, all the Skewness-Kurtosis values were within the statistically critical value range. Since these findings indicated that the data conformed to the normal distribution, parametric analyses were applied for the group's data, including over 30 persons during the data analysis.

Results

The distribution of the athletes who took part in the research per their distinctive characteristics is given in Table 1.

Table 1 - Findings related to the distinctive characteristics of the athletes included in the research (n=141)

	S	%
Gender		
Female	55	39.0
Male	86	61.0
Age		
12-15	1	.7
15-17	12	8.5
17-19	22	15.6
19-21	52	36.9
21-23	24	17.0
23-25	7	5.0
25+	23	16.3
Competition League		
1st League	36	25.5
2nd League	57	40.4
Super League	48	34.0
Game Position		
1.00	33	23.4
2.00	32	22.7
3.00	40	28.4
4.00	36	25.5
Sporting Year		
1-3	61	43.6
3-5	24	17.1
5-7	21	15.0
7-9	7	5.0
10+	27	19.3
Educational status		
Secondary education	31	21.8
Undergraduate	54	38.0
Postgraduate	43	30.3
Vocational Higher School	10	7.0
Doctorate	3	2.1

Source: Devised by the authors

When the table is reviewed, it is seen that 39% of the athletes included in the research are female, 61% male; 0.7% 12-15 years old, 8.5% 15-17 years old, 15.6% 17-19 years old, 15.6% 17-19 years old, 36.9% 19-21 years old, 17% 21-23 years old, 5% 23-25 years old, 16.3% 25 years and over, 25.5% compete in the 1st league, 40.4% in the 2nd league, 34% in the super league, 23.4% play in the 1st position, 22.7% in the 2nd position, 28.4% in the 3rd position, 25.5% in the 4th position, 43.6% have been doing sports for 1-3 years, 17.1% for 3-5 years, 15% for 5-7 years, 5% for 7-9 years, 19.3% for over 10 years, 21.8% are secondary

education graduate, 38% are undergraduate, 30.3% have a master's degree, 7% are vocational higher school graduate, and 2.1% have a doctorate.

The arithmetic mean and standard deviation values of the Communication Skills Scale (CSS) and Scale of Effective Communication in Team Sports (SECTS) scores are given in Table 2.

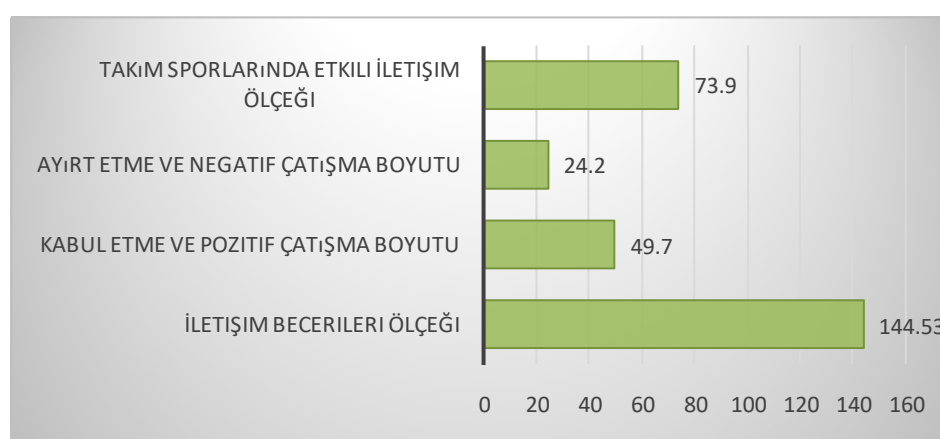
Table 2 - The arithmetic mean and standard deviation values of the Communication Skills Scale (CSS) and Scale of Effective Communication in Team Sports (SECTS) scores

	Minimum	Maximum	Arithmetic mean	S.d.
Communication Skills Scale	30	175	144.53	24.93
Acceptance & Positive Conflict Dimension	10	63	49.70	10.31
Discernment & Negative Conflict Dimension	6	42	24.20	8.49
Scale of Effective Communication in Team Sports (SECTS)	16	105	73.90	16.08

Source: Devised by the authors

When the table is examined, it is seen that the mean score for the Communication Skills Scale (CSS) is 144.53 ± 24.93 , while the mean score is 49.70 ± 10.31 for 'Acceptance & Positive Conflict' Dimension, 24.20 ± 8.49 for 'Discernment & Negative Conflict' Dimension, and 73.90 ± 16.08 for SECTS (Graph 1).

Chart 1 - The arithmetic mean pertaining to the Communication Skills Scale (CSS) and Scale of Effective Communication in Team Sports (SECTS) scores



Source: Devised by the authors

Pearson correlation analysis was applied to determine whether there is a relationship between the CSS and SECTS scores (Table 3).

Table 3 - Correlation Values of the Relationship between the Perceived Communication Skills Scale (CSS) and Scale of Effective Communication in Team Sports (SECTS) scores

	Communication Skills Scale	
Acceptance & Positive Conflict Dimension	r	.619**
	p	.000
Discernment & Negative Conflict Dimension	r	.214*
	p	.011
Scale of Effective Communication in Team Sports (SECTS)	r	.510**
	p	.000

* p<0.05 ** P< 0.01

Source: Devised by the authors

Correlation values of Communication Skills Scale with Acceptance & Positive Conflict Dimension, Discernment & Negative Conflict Dimension, Effective Communication in Team Sports Scale scores were positively significant at p<0.05 significance level.

As a result, it was determined that as the Communication Skills Scale (CSS) scores increased Acceptance & Positive Conflict Dimension, Discernment & Negative Conflict Dimension, and Scale of Effective Communication in Team Sports (SECTS) scores increased as well.

Linear Regression analysis was applied to determine the predictive power of Athletes' Communication Skills Scale scores on Acceptance & Positive Conflict Dimension, Discernment & Negative Conflict Dimension, Scale of Effective Communication in Team Sports scores (Table 4).

Table 4 - Linear Regression Analysis results regarding the prediction power of the Athletes' CSS scores on Acceptance & Positive Conflict Dimension, Discernment & Negative Conflict Dimension, and SECTS scores

	Variable	B	Standard Error	Beta	t	p
Acceptance & Positive Conflict Dimension	Constant	12.680	4.025		3.150	.002
	Communication Skills Scale	.256	.027	.619	9.331	.000
	R=.619		R ² =.383			F _(1,140) =87.076 p=.000
Discernment & Negative Conflict Dimension	Constant	13.689	4.123		3.321	.001
	Communication Skills Scale	.073	.028	.214	2.588	.011
	R=.214		R ² =.046			F _(1,140) =6.698 p=.011
Scale of Effective Communication in Team Sports (SECTS)	Constant	26.369	6.877		3.834	.000
	Communication Skills Scale	.329	.047	.510	7.013	.000
	R=.510		R ² =.260			F _(1,140) =49.180 p=.000

Source: Devised by the authors

Communication Skills Scale scores reveal significant relationships with Acceptance and Positive Conflict Dimension ($R=.619$, $R^2=.383$, $p<0.05$). The Communication Skills Scale variable explains 38% of the total variance of athletes' Acceptance and Positive Conflicts. When the t-test results regarding the significance of the regression coefficients are examined, it is seen that the Communication Skills Scale variables are a significant predictor of the athletes' Acceptance and Positive Conflict dimension.

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Communication Skills Scale scores reveal significant correlations with Effective Communication in Team Sports ($R=.510$, $R^2=.260$, $p<0.05$). The Communication Skills Scale variable explains 26% of the total variance of the athletes' Scale of Effective Communication in Team Sports. When the t-test results regarding the significance of the regression coefficients are examined, it is seen that the CSS variables are significant predictors of the athletes' SECTS.

According to the distinctive characteristics of the athletes included in the research, the differences in terms of the Communication Skills Scale, Acceptance & Positive Conflict dimension, Discernment & Negative Conflict dimension, and SECTS scores are given in Table 5.

Table 5 - According to the distinctive characteristics of the athletes included in the research, the differences in terms of the Communication Skills Scale, Acceptance & Positive Conflict dimension, Discernment & Negative Conflict dimension, and SECTS scores

		Communication Skills Scale		Acceptance & Positive Conflict Dimension		Discernment and Negative Conflict Dimension		Scale of Effective Communication in Team Sports (SECTS)	
		□	S.d.	□	S.d.	□	S.d.	□	S.d.
Gender	Female	151.20	15.978	49.27	8.816	22.27	8.767	71.55	14.927
	Male	140.76	28.363	50.29	10.841	25.56	8.076	75.85	16.222
	TEST		t=2.792 p=.006		t=-.584 p=.560		t=-2.279 p=.024		t=-1.584 p=.115
Age	15-17	148.42	23.635	48.33	9.228	18.50	8.426	66.83	15.805
	17-19	138.64	19.135	49.64	8.677	22.77	7.940	72.41	14.748

19-21	142.79	29.110	49.06	11.097	27.08	8.657	76.13	17.905
21-23	142.33	29.159	46.83	12.243	23.63	8.272	70.46	17.157
23-25	164.71	9.032	53.29	8.361	26.43	8.696	79.71	10.128
25+	149.91	13.474	55.04	5.103	22.74	7.053	77.78	9.867
TEST		F=9.367 p=.095		F=9.765 p=.082		F=13.116 p=.022		F=7.954 p=.159
DIFFERENCE	-		-		3>1-2-6		-	

Source: Devised by the authors

Table 6 - According to the distinctive characteristics of the athletes included in the research, the differences in terms of the Communication Skills Scale, Acceptance & Positive Conflict dimension, Discernment & Negative Conflict dimension, and SECTS scores

		Communication Skills Scale		Acceptance & Positive Conflict Dimension		Discernment and Negative Conflict Dimension		Scale of Effective Communication in Team Sports (SECTS)	
		□	S.d.	□	S.d.	□	S.d.	□	S.d.
Competition League	1st League	136.67	29.872	49.19	10.964	24.28	8.433	73.47	16.140
	2nd League	146.56	22.406	50.05	9.154	22.93	7.644	72.98	14.477
	Super League	148.90	22.177	50.23	10.616	25.88	9.305	76.10	17.190
	TEST		KW=2.814 p=.063		KW=.119 p=.888		KW=1.586 p=.208		KW=.551 p=.578
Game Position	1	142.88	22.881	50.76	9.811	24.94	7.237	75.70	13.997
	2	146.66	27.439	51.88	10.847	24.88	8.780	76.75	16.993
	3	144.90	21.195	49.95	7.906	25.78	8.690	75.73	13.715
	4	144.92	28.275	47.28	11.538	21.47	8.696	68.75	17.743
	TEST		KW=.124 p=.946		KW=1.310 p=.274		KW=1.886 p=.135		KW=1.964 p=.122
Sporting Year	1-3	141.16	21.488	49.28	8.766	23.39	6.919	72.67	12.487
	3-5	144.71	27.589	48.17	11.103	24.58	11.100	72.75	20.092
	5-7	153.67	23.226	52.00	8.142	24.19	9.026	76.19	14.675
	7-9	150.14	15.093	54.71	5.251	24.00	7.832	78.71	10.372
	10+	144.89	31.499	49.67	13.703	26.26	9.168	75.93	20.488
	TEST		KW=6.993 p=.136		KW=3.837 p=.429		KW=2.157 p=.707		KW=2.938 p=.568
Educational status	Secondary	140.52	21.092	47.48	8.099	20.29	6.895	67.77	12.107
	Undergraduate	147.67	26.765	51.80	10.080	28.02	9.017	79.81	16.094
	Postgraduate	141.65	26.890	47.47	11.268	22.12	7.215	69.58	16.137
	Vocational	154.70	13.342	56.60	6.687	25.10	7.475	81.70	11.056
	Doctorate	151.00	2.000	53.00	3.606	26.33	9.018	79.33	12.583
	TEST		KW=5.379 p=.251		KW=13.955 p=.007		KW=21.245 p=.000		KW=21.943 p=.000
DIFFERENCE			-		2-4>3 4>1		2>1-3		2-4>1-3

Source: Devised by the authors

According to the gender of the athletes, the t values pertaining to the differences between them in terms of the Communication Skills Scale and Discernment & Negative Conflict dimension scores were significant at $p < 0.05$ significance level. These findings suggest differences among the athletes, according to their genders, in terms of the Communication Skills Scale and Discernment & Negative Conflict dimension scores. When continued to examine the table, it is seen that those female athletes have higher Communication Skills Scale scores than male athletes, and male athletes have higher Discernment & Negative Conflict dimension scores than female athletes.

According to the age of the athletes, the F values pertaining to the differences among them in terms of Discernment & Negative Conflict Dimension scores were significant at $p < 0.05$ significance level. These findings imply differences among the athletes, concerning their ages, in terms of Discernment & Negative Conflict dimension scores. LSD Post Hoc test was applied to understand the differences among the athletes regarding their age groups. As a result of the LSD Post Hoc test, the differences among the athletes' Discernment & Negative Conflict Dimension scores were higher within the 19-21 age group than 15-17, 17-19, and 25+ groups. They were significant at a $p < 0.05$ significance level.

With respect to the competition league, the KW values pertaining to the differences among the athletes in terms of the Communication Skills Scale, Acceptance and Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores were insignificant at $p > 0.05$ significance level. These findings show no difference between the athletes in the Communication Skills Scale, Acceptance and Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores concerning the competition league.

With respect to the game position, the KW values pertaining to the differences among the athletes in terms of the Communication Skills Scale, Acceptance and Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores were insignificant at $p > 0.05$ significance level. These findings imply no difference between the athletes regarding the Communication Skills Scale, Acceptance and Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores concerning the game position.

With respect to the sporting years, the KW values pertaining to the differences among the athletes in terms of the Communication Skills Scale, Acceptance and Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores were

insignificant at $p > 0.05$ significance level. These findings suggest no difference between the athletes in terms of the Communication Skills Scale, Acceptance and Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores, concerning the sporting years.

With respect to the educational status of the athletes, the KW values pertaining to the differences among the athletes in terms of Acceptance & Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores were significant at $p < 0.05$ significance level. These findings indicate differences between the athletes in terms of the Acceptance & Positive Conflict Dimension, Discernment & Negative Conflict dimension, and SECTS scores, concerning educational status.

LSD Post Hoc test was applied to understand the differences among the athletes regarding their educational status. As a result of the LSD Post Hoc test, it was found that the differences among the Acceptance & Positive Conflict Dimension scores of undergraduate athletes and vocational school graduate athletes were higher compared to those of postgraduates. In comparison, the differences among vocational higher school graduates were higher, compared to those of secondary school graduates, and those differences were significant at the $p < 0.05$ significance level; additionally, the differences among the Discernment & Negative Conflict dimension scores of postgraduate athletes were higher than those of secondary education and vocational higher school graduate athletes, and were significant at the $p < 0.05$ significance level; moreover, the differences of the SECTS scores among undergraduate and vocational higher school graduate athletes were higher compared to those of secondary education graduate athletes and postgraduates and were significant at the $p < 0.05$ significance level.

The Cronbach's Alpha coefficient was computed to find the internal consistency of the CSS and SECTS scales.

Table 7 - The Cronbach's Alpha coefficient of CSS and SECTS scales

Scales	Cronbach's alpha coefficient.	Number of Items
Communication Skills Scale	.956	25
Acceptance & Positive Conflict Dimension	.881	9
Discernment & Negative Conflict Dimension	.812	6
Scale of Effective Communication in Team Sports (SECTS)	.879	15

Source: Devised by the authors

As seen in Table 6, the highest level Cronbach's Alpha internal consistency coefficient within the CSS dimension was .956 for Curling athletes. Likewise, Cronbach's Alpha coefficient was .881 within the Acceptance & Positive Conflict sub-dimension, .812 within Discernment & Negative Conflict dimension. As for the SECTS scale, the Cronbach's Alpha value was computed as .879, and a high level of selectivity was identified.

Discussion And Conclusion

As a result of this research conducted on 141 elite athletes who competed in the Turkish Curling Federation Super League, first league and second league high-level competitions, it was found that the score levels of Curling Athletes at all league levels increased within the CSS scale and that there was a positive increase in all the sub-dimension scales, too. In addition, the variables of the Communication Skills Scale (CSS) were significant and predictive on athletes' Acceptance & Positive Conflict dimensions.

Regarding the demographic characteristics of the athletes participating in the research, differences according to their genders were found. The difference in females was of a more significant level than in males. Selağzı and Çepikkurt (2015) stated undergraduate male and female athletes to be affected by gender-related communication levels within close intensities (SELAĞZI; FATMA ÇEPIKKURT, 2015). In addition, according to Ulukan's (2012) research, it was revealed that there was no significant difference in using communication skills between men and women either in team sports or individual sports (ULUKAN, 2012). Those above-mentioned studies coincide with our study. It is estimated that this is due to the structure of Curling, a sport that impacts the results both individually and as a team, at the level of the communication scales.

With reference to age, the scores of the attendee athletes between the ages of 19-21 in the Discernment & Negative Conflict sub-dimension were higher and more significant than the athletes in other age groups. Furthermore, it is observed that the communication skills of the athletes improve as the number of sporting years increases. On the other hand, the research by Hacıcaferoğlu *et al.* indicated that even the university delivering the education service somehow affected the communication skills and success of the athletes (HACICAFEROĞLU *et al.*, 2015). In the research conducted by Ateş *et al.* (2018), it was proved that the increasing age of the athletes and coaches was adequate for the versatile use of communication skills. Thus, similar results supporting our findings were obtained in that study (ATEŞ; YILDIZ; YILDIZ, 2018).

The increasing education level of the athletes makes communication multi-dimensional and multifaceted. Each education level undergoes relatively a significant change when compared to the athletes at a lower level. In a study conducted by Özdemir and Abakay (2017) on female volleyball and football players, it was observed that the lower level of education in volleyball sports increased the scores of being destructive and passive. This result shows parallelism with our present research, indicating the multi-dimensionality of communication depends on the level of education (OZDEMIR; ABAKAY, 2017).

Considering the general findings of our research, it can be assumed that communication in team sports is affected by many factors. Primarily, starting from the personal relations of the athletes with each other, efficient conduct of communication through managers, trainers, and within teams brings success. This shows the importance of the subject in moving communication from one dimension to a multi-dimensional one. In addition, in the individuality dimension of communication, it is observed that age, gender, and educational status are affected within all sub-dimensions of communication.

Through the present research -just as in the Curling sport- the foresight has been put forward such that; the individuality, the team phenomenon, and the communication skills of the athletes should be at the forefront besides other factors such as training, trainer, game field. According to that foresight, the increasing education levels and ages of the athletes will also bring success. The current research conducted with Curling athletes obtained similar results to other studies focusing on team sports has indicated that communication skills have particular importance for each sports branch. In Curling, due to the considerable length of the playing field, which is 45 meters, the athlete shooting the stone needs to communicate with the captain either by hand gestures or verbal communication. The team's success depends on establishing healthy communication between these two players, getting to know each other very well, and training together in the long term. Looking at the research results, it can be seen that it increases depending on the athletes' education level and the level of the leagues they play. Therefore, the athletes in the lower leagues should train with the athletes in the upper leagues to develop their communication skills.

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