

# Degree Of Security And Safety Factors Availability In Teaching Throwing And Jumping Activities For Students Studying Athletics Curricula In Faculty Of Physical Education At Yarmouk University From Their Viewpoint

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## *Abstract*

The study aimed to identify the degree of security and safety factors available in teaching throwing and jumping activities for students studying athletics curricula at the Faculty of Physical Education at Yarmouk University from their viewpoint. The researchers used the descriptive approach to suit the nature and objectives of the study. After reviewing the theoretical literature and previous studies, the researchers built the study tool (questionnaire) in accordance with the nature and objectives of this study. The study tool consisted of (4) axes and (20) paragraphs that were answered through the five-point Likert scale. The community study consists of the students of the Faculty of Physical Education registered in the throwing and jumping activities, numbering (442) male and female students, while the study sample was (126) male and female students. For the statistical process of the data, the researchers used the statistical processing program (SPSS) through the use of several mathematical operations (arithmetic average, standard deviation, t-test, and one-way analysis of variance). Results showed that the degree of availability of security and safety factors in the courses of throwing and jumping activities at the Faculty of Physical Education at Yarmouk University came with an average degree, and it also

showed that there were statistically significant differences depending on the gender variable in the axis of handling tools and sports devices safely and were in favor of males. The results also showed that there were no statistically significant differences depending on the academic year variable. The researchers recommend working to raise students' awareness of the safety and security factors that should be applied during the teaching of throwing activities so that they become a behavior that students get used to.

Keywords: Security and Safety, Throwing and Jumping Activities, Athletics, Yarmouk University.

### **Introduction**

Security and safety factors are a basic requirement, and it is a necessary and urgent need for all employees from coaches and teachers to teach and train all individual and group sports, which requires the availability of security and safety factors using administrative and educational strategies. That is one of the priorities of sports communities, because of its importance in the prevention of sports injuries and maintaining the tools intact to suit their use with all variables. Therefore, those responsible for preparing athletes strive with all the tools and means available to them to achieve this goal. It is one of the elements of reviving ideas by those in charge of training and teaching athletics activities and dealing with the sports environment. Security and safety factors are also among the goals that must be taken into account when preparing and planning sports performances and other activities, events, and games and in all administrative, organizational, and technical aspects (Hamdan and Najla, 2019).

Kovrov & Antonva (2013) have shown that the concept of safety in our present time has become one of the most important variables in all fields for the success of the educational and learning process in modern life, in education particularly and life in general. Safety from risks is the main criterion for the success of the educational process and the need to develop a humane educational environment oriented toward young people. Maslow points out that satisfying a child's need for security is of great importance in satisfying physiological needs, and if security is not achieved, the individual feels anxious and psychologically uncomfortable performing the required actions (Mukhaimer, 2003)

Hodgeman (2011) suggests that learning activities should lead to a sense of belonging, emotional security, a sense of place, safe opportunities, risk, and challenge. Rossol (2014) explained that due to the use by learners of some materials and tools that are used in the educational learning process, it is necessary to ensure the safety of tools and understand the instructions of labels and how to use them, in order to reduce the risks of using tools and using of learning strategies that help to achieve public and psychological safety.

Larson (1974) believes that one of the most common causes of injuries in competitions is the lack of preparation of the athlete, the lack of appropriate security and safety factors, also, the failure to apply laws and regulations and follow the instructions for each competition. A study prepared by the British Association of School Physicians in (1982), which was conducted over two years in boarding schools for males containing (750) students, showed that (78%) of school accidents resulted from sports participation. Watkins et al., (1997) pointed out that injuries resulting from the practice of sports activities are greater than injuries in other subjects. Therefore, should be developed a clear policy to provide safety and health factors in the physical education lesson.

Security and safety factors in sports are one of the most crucial global training goals that must be considered from planning, organizing, and selecting adequate spaces for activity and appropriate tools and devices. (Al-Hashimi 2018). Also, should be attention to the place of training and education and the suitability of playgrounds for security and safety factors and medical supervision coinciding with the activity (Ann Forsyth 2016; Abdul Jawad 2015; Mahmoud 2016)

Rossol (2014) explained that it is necessary to improve the skills of learners from the use of some materials that are used in the educational learning process and ensure the safety of tools by understanding the instructions for use and maintenance from manufacturers that have labels on how to use them to reduce the risks of using tools. In addition to the use of teaching strategies that help achieve public and psychological safety. Security and safety factors are one of the priorities that must be observed and provided in sports stadiums, whether these factors are specific to sports tools or in facilities and tools, landing areas, approach roads, throwing tools, and enough spaces to keep the audience away from the throwing field with sufficient distances and stands for fans. Some statistics indicate

that the number of children who were injured and hospitalized due to a lack of safety and security factors in some playgrounds reached (23,700) children in the United States of America. An example of an incident involving safety and security factors which are occurred in Scotland in 1971 at Ibrox Stadium due to the collapse of some barriers within the Stadium, resulting in (66) deaths and (200) injuries. Also, the case happened in Britain in 1985, when a fire broke out in the stands at the Valley Parade Stadium, resulting in 56 deaths and more than 200 injuries (Sadiq, 2022).

Athletics, especially throwing activities, are considered one of the oldest sports practiced by man through the ages, where a prehistoric man was struggling for survival and his life was linked to the hunting abilities that provides him and his family, associated with his skills in running, sprinting, jumping and overcoming natural barriers. Athletics activities were held in Greece in 1453 BC. and for the first time entered the Olympiad in 1896, which was held in the city of Athens (Rabadi, 2005). Referring to security and safety in athletics lectures is based on two assumptions, the first is that the teacher has an educational and ethical responsibility to provide a safe environment for students and he must conduct the lesson or lecture to achieve the goals of security and safety, and the second assumption is more powerful, the law stipulates that teachers must provide a safe environment for students and these responsibilities cannot be ignored (Abdul Karim, 1995).

According to Al-Dairi and Al-Wisi (2016), security and safety factors in sports activities are essential and important to strive for, the first step to strive towards this is the thought based on the management of activities, the more those responsible for managing activities are aware of and believe in the importance of putting the principle of security and safety first, the safer the planning and execution of activities will reduce the risk of injuries. There is an urgent need to consider the parameters of sports activities, the devices used and training methods, the responsibility shall be determined in the direction of any failure that may endanger others, the two researchers noted through their work as coaches, teachers, and players in many power Games events, especially throwing and jumping activities, that teachers and coaches did not use educational and administrative strategies and appropriate formations.

By familiarizing the researchers with the theoretical literature and previous studies, it turned out from these studies that they have been interested in studying the degree of availability of security and safety factors in some different sports such as gymnastics, swimming, athletics in general and teaching in schools and colleges of physical education, It has diversified in the goals it has sought, as many of them have sought the level of application of security and safety factors in physical education classes, such as the study of Issa (2022), Huang (2000), Jaber and others (1999), McMaster (1998) and Al-Ambabi

(2019). There are some studies aimed at identifying security and safety factors in sports stadiums, such as Nada et al. (2021), Majd et al. (2021), and Harati et al. (2019). There are studies aimed at identifying the availability of security and safety factors in all throwing and jumping activities in general, such as the studies of Momani (2018), and Abdul Haqq (2003). There are studies aimed at identifying the level of application of security and safety factors in a sports facility, such as the study of Bakraoui and Bakhti (2017).

Most of the previous studies included teachers, students, experts, children, and previous studies, all of which used the descriptive method, the statistical methods used differed, and the questionnaire was used as a means of collecting information in all studies. However, the current study was distinguished from previous studies in addressing safety and security factors in throwing events (shotput, discus, hammer, javelin), jumping events (pole vault, long jump, triple jump, high jump), and identifying safety factors in the fields of throwing and jumping, provide safe spaces and landing areas, follow protocols in the maintenance of tools and follow-up detection of damaged tools and exclude them.

### **Study importance**

The importance of the study lies in the fact that:

1. One of the few studies within the limits of the researchers' knowledge that was interested in knowing the degree of availability of security and safety factors in athletics competitions, especially throwing and jumping events.
2. The results of this study are useful in the planning and preparation process to deal with safety and security factors in throwing and jumping events through the knowledge and information provided.
3. The results of this study may benefit the Faculty of Sport Education in general and the teachers of throwing and jumping

events in particular considering the security and safety factors and raising the standards of security and safety factors.

4. The importance of this study shows that the buying of sports tools with high specifications and approved by international federations, which are safer than the quality of manufacturing is of great importance and it is possible to use them for a long period to then provide security and safety factors for its user.

### **Study objectives**

The purpose of this study was to identify:

1. The degree of availability of security and safety factors in teaching throwing and jumping events for students studying athletics curricula at the Faculty of Physical Education at Yarmouk University from their viewpoint.
2. Differences in the degree of availability of security and safety factors in teaching throwing and jumping events for students studying athletics curricula at the Faculty of Physical Education at Yarmouk University from their viewpoint, depending on the variable (gender and academic year).

### **Study questions**

This study seeks to answer the:

1. What is the degree of availability of security and safety factors in teaching throwing and jumping events for students studying athletics curricula at the Faculty of Physical Education at Yarmouk University from their point of view?
2. Are there any significant differences in the degree of availability of safety and security factors in teaching throwing and jumping events for students studying athletics curricula at the Faculty of Physical Education at Yarmouk University from their viewpoint depending on the variable (gender and academic year )?

### **Study area**

**Spatial field:** Faculty of Physical Education at Yarmouk University.

**Time field:** First semester of the university year (2022/2023).

**Human Field:** students of the Faculty of Physical Education at Yarmouk University enrolled in throwing and jumping events.

### **Study terminology**

**Athletics:** a competitive physical activity that includes several separate competitions based on the natural movements of humans, such as running, jumping, and throwing which are among the approved Olympic sports. They have world championships, federations organized and supervised by them to achieve educational and educational goals in addition to their role in achieving physical efficiency and contribute an important role by improving performance in various other sports (Hammouri, 2013).

**Safety and security:** A set of procedures, instructions, or directions taken by the teachers in charge of the physical education lesson in order to prevent, protect or educate the personnel present at the lesson, including practitioners, teachers, and spectators, from getting into injuries and avoiding accidents before, during and after the physical education lesson (Jaber, 1999).

### **Study procedures**

#### **Study method**

The descriptive method was used to suit the nature and objectives of the study.

#### **Study community**

The study community consists of all students registered for throwing and jumping activities in the specialty of Physical Education at Yarmouk University, where their number reached (442).

#### **Sample study**

The sample of the study consisted of 126 students enrolled in throwing and jumping activities in the specialty of physical education at Yarmouk University, and Table (1) shows that.

**Table (1): Characteristics of the sample study (n=126)**

<b>Variables</b>	<b>Category</b>	<b>N</b>	<b>%</b>
Gender	Males	56	44.4
	Females	70	55.6
	Total	126	100
Academic Year	Frist	21	16.7
	Second	31	24.6
	Third	18	14.3
	Fourth	56	44.4

	Total	126	100
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### Study tool

For the purpose of preparing the study tool and after familiarizing with previous studies (Majd et al., 2021; Abu Tameh 2006; Abdul Haqq 2003; AL-Qaryuti 2010; Bakraoui and Bakhti, 2017; Momani, 2018; Issa et al. 2022, Nada et al., 2021) relevant to the current study and collecting information related to the study, the questionnaire was built to fit the nature and objectives of the current study, where the study tool in its final form consisted of (4) axes and (20) paragraphs, which were answered through a five-point Likert scale..

**Table (2): Distribution of response scores.**

1	2	3	4	5
Disagree very much	Largely disagree	Moderately agree	Largely agree	Agree very much

Estimation of periods of a description of arithmetic averages

- low rating 1.00-2.33
- average rating 2.34- 3.66
- high rating 3.67-5.00)

### Validity of the study tool

In order to ensure the validity of the tool, it was presented to the competent arbitrators to express their opinions and observations, and to submit any notes for modification, as in Appendix (1), where the appropriate modifications were made, the tool became ready for use, as in Appendix (2) and Appendix (3), indicating the name and their academic rank.

### Stability of the study tool

**Table (3):** Stability of the fields of availability of safety and security factors in throwing and jumping activities by the method of internal consistency (Cronbach Alpha) (n=126).

Fields/ Factors	Paragraph No.	Cronbach value ( $\alpha$ )
Sports tools and devices	5	0.841
Playgrounds and teaching places for throwing and jumping events	5	0.838
Course teacher	5	0.852



Students	5	0.863
Total degree of availability of security and safety factors in throwing and jumping events	20	0.937

Table (3) shows that the fields of the degree of availability of security and safety factors in throwing and jumping activities at the Faculty of Physical Education at Yarmouk University from the viewpoint of students have high stability values. The stability value of the field of sports tools and devices was (0.841), the value was (0.838) for the field of playgrounds and teaching places, the stability value was (0.852) for the field of the course teacher, and the stability value was (0.863) for the field of students. As for the value of the total degree of the availability of security and safety factors in throwing and jumping events, it amounted to (0.937).

### **Study variables**

#### **Independent variable**

- Gender has two levels: male female
- Academic year: first, second, third, and fourth

#### **Dependent variable**

The response of the study sample members to the study tool

#### **Statistical processing**

The SPSS statistical analysis program, version 23, was used to process the study data statistically through several mathematical operations, namely:

Arithmetic averages, standard deviations, Cronbach's Alpha, t-test, and One-way analysis of variance.

### **Chapter Four (Results and Discussion)**

#### **Results of the first question**

**To answer the first question, which states "What is the degree of availability of security and safety factors in throwing and jumping events at the Faculty of Physical Education at Yarmouk University".** The researchers used the arithmetic averages and standard deviations for the paragraphs of the axes degree of availability of safety and security factors in throwing and jumping events at the Faculty of

physical education at Yarmouk University. Tables (4,5,6,7,8) show that.

**Table (4): Arithmetic averages and standard deviations to the degree of availability of safety and security factors in throwing and jumping events at the Faculty of Physical Education (Yarmouk University) in descending order according to arithmetic averages (n=126).**

No.	Fields / Factors	arithmetic average	standard deviation	Relative significance	Classifying	Ranks
4	Students	3.66	0.81	73.20	Average	1
3	Course teacher	3.63	0.86	72.60	Average	2
2	Playgrounds and teaching places for throwing and jumping events	3.25	0.83	65.00	Average	3
1	Sports tools and devices	3.15	0.86	63.00	Average	4
	Total degree of availability of security and safety factors in throwing and jumping event	3.43	0.72	68.60	Average	

Table (4) shows the values of arithmetic averages and standard deviations to the degree of availability of safety and security factors in throwing and jumping events at the faculty of physical education (Yarmouk University) in descending order, as it turns out that it reached the total score (3.43) and this value achieved an average score. It was also found that the field of students achieved the highest value among the arithmetic averages, with a value of (3.66), and this value is classified as an average grade, while the field of Sports tools and devices achieved the last rank among the averages, where the value of this average was (3.15), and this average represents an average grade, and the values of the arithmetic averages differed between these two values.

**Table (5): Degree of availability of security and safety in sports tools and devices in throwing and jumping events at the faculty of physical education at Yarmouk University in descending order according to arithmetic averages (n=126).**

No.	Paragraph (sub-factors)	arithmetic averages	standard deviation	Relative significance	Classifying	Ranks
2	There is a special place for sports tools and devices for throwing and jumping events in athletics	3.44	1.02	68.8	Average	1

1	Tools equipped for throwing and jumping events in athletics are suitable in terms of legal specifications	3.34	1.04	66.8	Average	2
4	The spaces between the devices of the throwing and jumping events in athletics are suitable to allow students to move safely and freely	3.29	1.07	65.8	Average	3
3	There are guideboards related to the transportation of sports tools and devices	2.98	1.14	59.6	Average	4
5	Tools and trolleys are available to transport sports tools and equipment	2.71	1.19	54.2	Average	5
	Security and safety in sports tools and devices	3.15	0.86	63	Average	

Table (5) displays the values of arithmetic averages and standard deviations to the degree of availability of safety and security factors in sports tools and devices in throwing and jumping events at the faculty of physical education (Yarmouk University) in descending order. It found that the total score for the field of sports tools and devices was (3.15). Where paragraph. (2) ranked first, states " There is a special place for sports tools and devices for throwing and jumping events in athletics" with an arithmetic average (3.44), whereas paragraph (5) came in last place, which states that " Tools and trolleys are available to transport sports tools and equipment", where the value of this average was (2.71).

**Table (6): Degree of availability of security and safety in playgrounds and places of teaching throwing and jumping events in throwing and jumping events at the Faculty of Physical Education (Yarmouk University) in descending order according to arithmetic averages (n=126).**

NO.	Paragraph (sub-factors)	arithmetic averages	standard deviation	Relative significance	Classifying	Ranks
3	The area of the special playgrounds for throwing and jumping events in athletics is proportional to the number of course students	3.37	1.03	67.4	Average	1

5	There are enough gates to enter and exit safely for students of the course and ambulances in emergency cases	3.31	1.11	66.2	Average	2
2	Safety aspects are available on the floor of the field of throwing and jumping events in athletics	3.21	1.12	64.2	Average	3
4	The places of throwing and jumping events in athletics are free from obstacles that prevent the safe practice of the events to be taught	3.19	0.94	63.8	Average	4
1	The competition and training arenas are suitable for the type of throwing and jumping events in athletics with the number of students in the course	3.18	1.11	63.6	Average	5
	Security and safety in playgrounds and places of teaching throwing and jumping events	3.25	0.83	65	Average	

Table (6) displays the arithmetic averages and standard deviations to the degree of availability of security and safety factors in playgrounds and places of teaching throwing and jumping events in throwing and jumping events at the faculty of physical education (Yarmouk University) in descending order, where the total value of the field of playgrounds and teaching places reached an arithmetic average (3.25). Paragraph (3) came in the first place, which states that "the area of the special playgrounds for the throwing and jumping events teacher is proportional to the number of course students" with an arithmetic average of (3.37), and paragraph (1) came in last place, which states that "The stadiums are suitable for the type of athletics activities with the number of students in the course " the value of this average was (3.18).

**Table (7): Degree of availability of security and safety through the teacher of throwing and jumping events at the Faculty of Physical Education at Yarmouk University in descending order according to the arithmetic averages (n=126).**

No.	Paragraph (sub-factors)	arithmetic averages	standard deviation	Relative significance	Classifying	Ranks
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4	The teacher takes into account the gradualness in learning the throwing and jumping events required for the course	3.78	0.98	75.6	High	1
3	The teacher performs a good warm-up for the students, according to the type of event	3.77	1.09	75.4	High	2
5	The teacher takes into account individual differences when teaching throwing and jumping events that are characterized by Danger	3.71	1.03	74.2	High	3
2	The teacher prepares the event venue before using it	3.46	1.18	69.2	Average	4
1	The teacher constantly checks the tools and devices for throwing and jumping events	3.44	1.15	68.8	Average	5
	Security and safety through the teacher of throwing and jumping events	3.63	0.86	72.6	Average	

Table (7) displays the values of arithmetic averages and standard deviations to the degree of availability of security and safety through a teacher teaching throwing and jumping events at the faculty of physical education (Yarmouk University) in descending order, where the total grade for the field of the course teacher reached an arithmetic average (3.63). Paragraph (4) came in first place, stating "the teacher takes into account the gradation in learning the required activities for the course with an arithmetic average (3.78), paragraph (1) came in last place, which states "The teacher checks the tools and devices of the throwing and jumping events teacher continuously" with an arithmetic average (3.44).

**Table (8): Degree of availability of security and safety through the students of throwing and jumping events at the Faculty of Physical Education at Yarmouk University in descending order according to the arithmetic averages (n=126).**

No.	Paragraph (sub-factors)	arithmetic averages	standard deviation	Relative significance	Classifying	Ranks
1	Students conduct the appropriate warm-up for the event	3.83	0.97	76.6	High	1
4	Students wear appropriate sportswear for each event	3.75	1.04	75	High	2
5	Students follow the teacher's instructions about the system (e.g. queuing, taking distances))	3.71	0.99	74.2	High	3
3	Students take into account the safe distances from their colleagues while performing the activities to be taught	3.56	0.96	71.2	Average	4
2	Students comply with the instructions for transporting and using devices	3.45	1.09	69	Average	5
	Security and safety through the students of throwing and jumping events	3.66	0.81	73.2	Average	

Table (8) the values of arithmetic averages and standard deviations display the availability of security and safety through students throwing and jumping events at the faculty of physical education (Yarmouk University) in descending order, where the total value of the field of students reached an arithmetic average (3.66). Paragraph (1) came in first place, which states "Students perform the appropriate warm-up for the event with an arithmetic average (3.83), while paragraph (2) came in last place, which states" Students comply with the instructions for transporting and using devices " with an arithmetic average (3.45).

#### **Results of the second question**

**To answer the second question, which states:** "Are there any statistically significant differences at the level of ( $\alpha \leq 0.05$ ) in the degree of availability of safety and security factors in throwing and jumping events at the Faculty of Physical Education at Yarmouk University depending on the variable (gender, academic year). Tables No. (11, 10, 9) show that, where the researchers used the t-test, one-way analysis of variance test, arithmetic average, and standard

deviations for the axes of the paragraphs to the degree of availability of security and safety factors in the throwing and jumping activities in the Faculty of Physical Education at Yarmouk University.

**First: Differences depending on the gender variant**

**Table (9): Arithmetic averages and standard deviations for the fields to the degree of availability of safety and security factors in throwing and jumping events and t-test for independent groups according to the gender variable (N=126).**

Fields/factors	Gender	N	arithmetic averages	standard deviation	Free degree	t-value	significance level
Sports tools and devices	Males	56	3.34	0.82	124	2.250	0.026*
	Females	70	3.00	0.86			
Playgrounds and teaching places for throwing and jumping events	Males	56	3.26	0.88	124	0.038	0.969
	Females	70	3.25	0.79			
Course teacher	Males	56	3.67	0.90	124	0.401	0.689
	Females	70	3.61	0.83			
Students	Males	56	3.69	0.88	124	0.293	0.770
	Females	70	3.64	0.76			
Total degree of availability of security and safety factors in throwing and jumping events	males	56	3.49	0.75	124	0.872	0.385
	Females	70	3.38	0.70			

Table (9) displays the results of the t-test for independent groups, the results showed that there were significant differences in the field of sports tools and devices between males and females and were in favor of males, where the t-value (2.250) with a significance level of (0.026), which is less than (0.05). The results also showed that there were no significant differences, as for the field of playgrounds and places of teaching throwing and jumping events amounted to (0.969). The value of the statistical significance level for the field of the course teacher was (0.689), for the field of students was (0.770), and for the total degree of availability of security and safety factors in throwing and jumping events was (0.385).

**Secondly: Differences depend on the variant of the academic year**

**Table (10): Arithmetic averages, standard deviations, and one-way analysis of variance test for the degree of availability of safety and security factors in throwing and jumping events depending on the academic year variable (N=126).**

Fields / Factors	academic year	N	arithmetic averages	standard deviation
Sports tools and devices	First	21	3.43	0.98
	Second	31	3.12	0.92
	Third	18	3.26	0.75
	Fourth	56	3.04	0.80
Playgrounds and playgrounds for teaching throwing and jumping events	First	21	3.37	0.86
	Second	31	3.05	0.89
	Third	18	3.50	0.68
	Fourth	56	3.24	0.82
Course teacher	First	21	3.74	0.75
	Second	31	3.54	1.02
	Third	18	3.68	0.74
	Fourth	56	3.63	0.86
Students	First	21	3.94	0.69
	Second	31	3.58	0.83
	Third	18	3.53	0.70
	Fourth	56	3.64	0.88
The total degree of availability of security and safety factors in throwing and jumping events	First	21	3.62	0.76
	Second	31	3.32	0.80
	Third	18	3.49	0.61
	Fourth	56	3.39	0.69

Table (10) displays the arithmetic averages and standard deviations of the fields for the degree of availability of safety and security factors in throwing and jumping events at the faculty of physical education (Yarmouk University), depending on the academic year variable, it is clear that these values vary depending on the academic year. To investigate the importance of these differences between the averages and their significance from a statistical viewpoint, the researchers used the analysis of one-way analysis of variance test, and the following table shows the results of this analysis.

**Table (11): Results of the one-way analysis of variance to examine the differences in the degree of availability of safety and security factors in throwing and jumping events at the faculty of physical**



education (Yarmouk University) according to the academic year variable (N=126).

Fields / Factors	variance source	total of squares	Freedom degree	Average squares	f-value	Significant level
Sports tools and devices	academic year	2.583	3	0.861	1.179	0.321
	error	89.110	122	0.730		
	Total	91.693	125			
Playgrounds and teaching places for throwing and jumping events	academic year	2.656	3	0.885	1.301	0.27
	error	82.977	122	0.680		
	Total	85.633	125			
Course teacher	academic year	0.548	3	0.183	0.241	0.867
	error	92.232	122	0.756		
	Total	92.780	125			
Students	academic year	2.180	3	0.727	1.100	0.352
	error	80.577	122	0.660		
	Total	82.757	125			
Total degree of availability of security and safety factors in throwing and jumping events	academic year	1.284	3	0.428	0.822	0.484
	error	63.500	122	0.520		
	Total	64.784	125			

Table (11) displayed the results of the one-way analysis of the variance test and showed that there were no significant differences between the answers of the first, second, third, and fourth-year students. Where the f-value was (1.179) with a significance level (0.321) for the field of sports tools and devices, the f-value reached (1.301) with a significance level of (0.277) for the field of playgrounds and teaching places, and the f-values was (0.241) with a significance level of (0.867) for the field of the course teacher, also, the f-value was (1.100) with a significance level of (0.352) for the student field, and the f-value reached (0.822) with a significance level of (0.484) for the total degree of availability of security and safety factors.

**Discussion of the first question**

To answer the first question, which states the degree of availability of security and safety factors in throwing and jumping events at the

Faculty of Physical Education at Yarmouk University from the students' viewpoint. Tables (3,4,5,6,7,8) show the degree of availability of security and safety factors in throwing and jumping events at the Faculty of Physical Education at Yarmouk University and in all fields (sports tools and devices, playgrounds and teaching places, course teacher, and students) was an average degree. Researchers believe that the degree of availability of security and safety factors came to an average degree because athletics tools and devices are somewhat suitable in terms of legal specifications, but not all tools, and there is a special place for some tools. Also, researchers believe that the spaces between the throwing places are suitable to allow students to move safely during the throwing process, except they were (discus, shotput, javelin, and hammer throwing). The researchers also believe that there is no special field for javelin throw, as the field for students came in first place, and they believe that the students perform the appropriate warm-up according to the type of event, whether it was throwing or running, and the students adhere to the instructions for transporting and using the devices, and the students wear the appropriate sports clothes for each event.

The second place is the course teacher, where the researchers attribute that the course teacher does not check the tools and devices for athletics on an ongoing basis, where the teacher prepares the venue of the event before using it and conducts a good warm-up for students depending on the type of event. It also takes into account the gradualness of teaching students the required activities, The course teacher takes into account the individual differences between students when giving dangerous events such as (throwing the weight (shotput), hammer rolling, discus throw, and javelin throw).

As for the third place, playgrounds and teaching places, the researchers believe that the playgrounds of the faculty of physical education (Yarmouk University) do not match the type of events and do not match the number of students. Security and safety factors are available to an average degree and the Faculty of Physical Education Stadium is not free from obstacles that prevent the safe practice of events, the researchers believe that there are not enough gates for the entry and exit of students of the course and ambulances in emergency cases.

In the last place came sports tools and devices, and researchers believe that athletics tools and devices do not fit in terms of legal

specifications and guidance boards are not available related to the transportation of sports tools and devices, also, the floors of the places intended for throwing do not legally fit into the legal playgrounds. The results of the study agreed with the studies of Momani (2018), Jaber and others (1999), and Bakraoui & Bakhti (2017), and differed with the study of Ben Issa and others (2022), Huang (2000), and Abdul Haqq (2003).

### **Discussion of the second question**

To answer the second question, which states that there are statistically significant differences in the degree of availability of security and safety factors in throwing and jumping events at the Faculty of Physical Education at Yarmouk University from the viewpoint of students depending on the variable (gender, academic year), the researchers will discuss the results according to each variable:

First, the differences in the degree of availability of security and safety factors in throwing and jumping events at the Faculty of Physical Education at Yarmouk University depending on the gender variant, returning to the results, Table (8) showed that there are significant differences at the level of statistical significance ( $\alpha \leq 50.0$ ) for the gender variable between males and females in the axis (tools and sports devices), where these differences came in favor of males who achieved a greater arithmetic average compared to the average of females, they believe that athletics events need muscle strength, which makes it easier for male students to handle tools, maintain them and transport them from the warehouse to the training place. The researchers believe that the tendency of male students to practice athletics events is greater than that of females because athletics events need (strength, flexibility, strength defined by speed, speed, and agility) and withstand different weather conditions, which makes it easier for male students to practice these events. The results of the study agreed with the study of Abu Tameh (2006) and differed in this axis with the study of Momani (2018), Jaber et al. (1999), Abdul Haqq (2003), and Alambaby (2019).

Second: differences in the degree of availability of security and safety factors in throwing and jumping events at the Faculty of Physical Education at Yarmouk University depending on the academic year variable, returning to the results of Tables (9 and 10), the results of these tables showed that there are no statistically significant

differences in the degree of availability of security and safety factors in throwing and jumping events in the Faculty and in all fields (sports tools and devices, playgrounds and teaching places, course teacher, students), they believe that the tools represented in the investigation and representation of security and safety factors in the Faculty of Physical Education (Yarmouk University) are used by first-year and fourth-year students alike, this indicates that these tools do not take into account security and safety factors, but focus on the technical aspects of performing the skill mainly. In addition, these tools are not updated over time, and therefore students who use them in the first year also use them in the fourth year, and they lack security and safety factors in terms of distances between the landing areas, the rusting and damage of metal tools, this explains why the views of students in different years on these factors do not differ, these results agreed with the Momani Study (2018) and disagreed with Al Issa (1997) study

## **Conclusions and recommendations**

### **Conclusions**

Based on the results of the study, the researchers concluded:

1. The degree of availability of security and safety factors came with an average degree in throwing and jumping events at the Faculty of Physical Education at Yarmouk University.
2. There are differences in the degree of availability of safety and security factors depending on the gender variant in throwing and jumping events at the Faculty of Physical Education at Yarmouk University.
3. There are no differences in the degree of availability of safety and security factors depending on the academic year variable in throwing and jumping events at the Faculty of Physical Education at Yarmouk University.

### **Recommendations**

1. Working to raise students ' awareness of the safety and security factors that should be applied during the practice of sports activities so that it becomes a behavior that students get used to in their lives.
2. Conduct training courses for students on how to apply safety and security factors in the course, and courses on first aid to train students on how to deal in the event of an injury within the course.

3. Working on the establishment of educational fields dedicated to athletics events.
4. Working on adding guidance boards related to the method of transporting tools and sports equipment.
5. Instruct the teachers and trainers of throwing activities to observe the forms of throwing and inspect the cages of the hammer and disk and their ability to stop tools and observe the rules followed globally in accordance with the curricula of the International Federation.
6. Urge teachers and trainers of jump events to check the landing areas and jumping equipment constantly.

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