

Mental skills and their relationship to the performance of the back rolling skill on the balance beam device in technical gymnastics

Lec.Dr. Ruaa Ali Hussein

Department of Physical Education and Sports Sciences /Faculty of Education for girls /
University of Kufa, Iraq.

Ruaaa.aljizani@uokufa.edu.iq

Abstract

The purpose of this paper isto recognizing the relationship between mental skills and the performance of the back rolling skill on the balance beam device in technical gymnastics.

The researcher used the descriptive approach in the style of correlational studies for its suitability to the nature of the research problem.The players of the College of Education for Girls' team define the research community for the academic year (2021-2022), who are (10) female players and it represents the entire community of origin.One of the most important results reached by the researcher is that: There is a positive moral correlation between mental skills and back rolling skill on the balance beam device in technical gymnastics, and the mental skills are important in performing the skill of the back rolling skill on the balance beam device in the technical gymnastics, as was shown through which the correct performance of the skill.

One of the most important recommendations recommended by the researcher that: The necessity of focusing on mental skills and the possibility of developing them through learning, training and mastering them to obtain the best skill performance, which is the desired goal, the necessity of paying attention to the skill of rolling the back ball in technical gymnastics, because it is the basic movements on the balance beam device used in kinetic chains, as well as its importance in other devices , and the necessity of conducting similar studies on clubs and different age groups for the possibility of benefiting from them to serve sports in general.

Keyword: Mental skills,back rolling skill,technical gymnastics

Introduction:

The development in all sporting events, including gymnastics in recent times, was not a coincidence, but came after studying other sciences such as anatomy, physiology, kinesiology, biomechanics, psychology, metrology, evaluation and others, as these various sciences helped the athlete reach optimal performance in various sporting events, especially Gymnastics in the shortest possible time and the least effort.” Gymnastics is an

aspect of physical activity and is characterized by its comprehensive effect on muscle groups as well as its good effect on the rest of the other body systems, which achieves consistency, integration and balanced growth, which is the basis for the integration of mental processes in addition to other qualities such as the flexibility of the body And agility of body, agility, muscle strength, and self-confidence” (Abdel-Fattah. 1997)And that

sports psychology has an impact on the progress of gymnastics for the better, “as it has a major role in the progress of many achievements in gymnastics, the development of mental processes and finding solutions to many obstacles with skills on various devices” (Al-Badawi. 1997). Therefore, the importance of the research lies in identifying the relationship of the mental skills of the players with the skill of rolling the back pellet on the balance beam device for the purpose of adjusting weaknesses and developing strengths, which helps us to stand on an important aspect of psychological aspects that support the efforts of trainers and those in charge of the educational and training process in reaching Taking female athletes to higher levels in gymnastics.

Research problem:

Through the observation and follow-up of the researcher to the college team players in gymnastics, the problem lies in mental skills, including lack of self-confidence, anxiety, lack of concentration of attention and lack of correct perception of the skill ... etc. When performing the skill of back rolling in technical gymnastics, the researcher decided to study this problem and answer the question: Are mental skills related to the performance of the skill of back rolling on the balance beam in technical gymnastics.

Research objective:

- Recognizing the relationship between mental skills and the performance of the back rolling skill on the balance beam device in technical gymnastics.

Research hypotheses:

- There is a significant relationship between mental skills and the performance of the skill of rolling

back pellet on the balance beam device in technical gymnastics.

Research fields:

- Human field: Female players of the College of Education for Girls' Gymnastics team
- Time field: (2/10/2021) to (30/1/2022)
- Spatial field: Gymnastics hall in the Department of Physical Education and Sports Sciences /Faculty of Education for girls.

Research methodology and field procedures:

Research Methodology:

The nature of the problem to be studied is what determines the nature of the approach. The researcher used the descriptive approach in the style of correlational studies for its suitability to the nature of the research problem.

Community and sample research:

The process of selecting the sample is in order to “study the case of a certain part of a certain percentage of the original community members and then generalize the results to the whole community” (Shehata and El-Shazly. 1983). The players of the College of Education for Girls’ team define the research community for the academic year (2021-2022), who are (10) female players and it represents the entire community of origin.

Information collection methods:

Research Methods

- Arabic references and sources.
- Personal interviews.
- -Note.

Devices and tools used:

- Balance beam device.
- One (1) tripod
- video camera

- CD-type discs.
- A Dell laptop computer.

Methods for measuring research variables

Psychological skills scale:

The Mental Skills Scale, designed by Stephen Bull, John Albinson, and Christopher Shambrook (1996) was adopted to measure some important mental (psychological) aspects of athletic performance. This scale measures six dimensions (the ability to visualize, the ability to focus attention, self-confidence, The ability to relax, the ability to confront anxiety, the motivation for sports achievement) and it includes (24) paragraphs, and the answer to these paragraphs is with six alternatives, and it was prepared by Muhammad Hassan Allawi, and they are as shown in Appendix (1).

Skills test:

The skill performance of the search skill (backward rolling) was measured on the balance beam device, by evaluating the performance of the players for the skill by (4) experts and specialists, in the field of gymnastics, where the degree of evaluation is according to a form prepared by the researcher for the evaluation degree ranging from (0-10) score, through the players' performance of the skill according to the skill's performance technique and conditions, and the evaluation is through videography, which was presented to the evaluation experts and calculated the score for the player.

Exploratory experience:

"It means a mini-experience similar to the basic real experience" (Barham. 1995)

For the purpose of determining the accuracy of the research work and the validity and avoidance of information that may appear during the main experiment procedures, where the researcher conducted the exploratory experiment on 10/25/2021 at ten-thirty in the morning in the Gymnastics Hall in the Department of Physical Education and Sports Sciences/ College of Education for Girls/ University of Kufa and on (4) Female players, and their results were approved in the main experiment. The purpose of the experiment was as follows:

- Confirm the validity of the camera.
- Confirmation of the validity of the video
- Determining the location of the camera and containing the photography for all stages of the skill.
- Knowing the time required to perform the experiment.
- Knowing the tools needed to perform the experiment.

Main experiences:

The researcher conducted the main experiment on the research sample, which numbered (10) players, on Tuesday 1/11/2021 in the Gymnastics Hall of the Department of Physical Education and Sports Sciences, at exactly ten-thirty in the morning, where the experiment began by distributing the mental skills scale to the research sample and after completing The answer to the scale The skill test was conducted for the skill in question and the performance of the female players was depicted.

Statistical methods: The search data was processed through the Statistical Package for the Social Sciences (SPSS).

Presentation, analysis and discussion of the results:**Presentation and analysis of the results:****Presenting the results of mental skills and the skill of back rolling on the balance beam device:**

Table (1) for description and inferential statistics shows the value of the arithmetic means and standard deviations of the research sample in the results of the investigated variables and successive side-wheel skill:

Table (1) Show the mean and standard deviation

Variables	Arithmetic mean	Standard deviation
Mental skills	93,60	4,08
Rolling back skill	8,60	0,96

Table (1) of the description and statistical inference shows that mental skills had arithmetic mean of (93.60) and a standard deviation of (4.08) either for the skill of back-rolling, the arithmetic mean was (8.60) and a standard deviation was (0.96).

Table (2) Shows the correlation coefficient, sig value, and the type of correlation

Variables	Correlation coefficient	Level value	Type correlation
Mental skills and Rolling back skill	0,91	0,000	Sig

Table (2) of the description and statistical inference shows that the calculated correlation coefficient value was (0.91) with a significant degree (sig) of (0.000), which is smaller than the error rate of (0.05), and this indicates the existence of a high correlation between mental skills And the skill of rolling back on the balance beam device in technical gymnastics for the players.

Discuss the results:

After the researcher conducted, the field experiment of searching and extracting the arithmetic means and standard deviations, which were presented in Table (1) and extracting the correlation coefficient, which was presented in Table (2) and analyzing the results that showed that there is a significant correlation between the mental skills and the skill investigated. The

relationship between them is direct, that is, the greater the mental skills, the better the performance of the skill of rolling back pellet on the balance beam device, because mental skills have a major role in the success and learning of any skill and improving the skillful performance of the athlete for the better because “the psychological aspect has a major role in the success of the skill performance Or behavior or any work done by the athlete, as learning and mastering mental skills gives the athlete the advantage of successful performance and superiority over others who do not have good mental skills” (Khattab. 1982) As the emergence of a significant correlation is an indication that the research sample has good mental skills and the performance of the players for the skill in question is also good, and this indicates that they possess self-confidence, mental perception, focus attention, ability to relax, face anxiety and motivation to achieve, where “the athlete can achieve the best performance if he has skills An integrated and balanced psychological in addition to its mastery, which proves its usefulness and effectiveness in raising the level of the athlete’s performance” (Farhan. 2012).

Conclusions and Recommendations

Conclusions:

Under the results of the research and the statistical data obtained, the researcher reached the following conclusions:

- There is a positive moral correlation between mental skills and back rolling skill on the balance beam device in technical gymnastics.
- The mental skills are important in performing the skill of the back

rolling skill on the balance beam device in the technical gymnastics, as was shown through which the correct performance of the skill.

Recommendations:

Under the conclusions reached by the researcher, a set of recommendations:

- The necessity of focusing on mental skills and the possibility of developing them through learning, training and mastering them to obtain the best skill performance, which is the desired goal.
- The necessity of paying attention to the skill of rolling the back ball in technical gymnastics, because it is the basic movements on the balance beam device used in kinetic chains, as well as its importance in other devices.
- The necessity of conducting similar studies on clubs and different age groups for the possibility of benefiting from them to serve sports in general.

References:

- Abdel Moneim Suleiman Barham. 1995. Encyclopedia of Modern Gymnastics, Dar Al Fikr for Printing and Publishing, 1st Edition, Jorda.
- Abu El-Ala Ahmed Abdel-Fattah. 1997. Physical training, the physiological basis, Dar Al-Fikr Al-Arabi, Cairo.
- Ahmed Al-Hadi Youssef Al-Badawi. 1997. Methodological methods in teaching and training gymnastics, Dar Al-Maaref, Alexandria.
- Ahmed Ibrahim Shehata and Ahmed Fouad El-Shazly. 1983. The Art of Floor Movements for Gymnastics, Dar Al-

Maaref Press, Cairo.
Atiyat Muhammad Khattab. 1982. Al-Tamaryat for Girls, 6th edition, Dar Al-Maaref, Cairo.

Laila El-Sayed Farhan. 2012. Measurement and Tests in Physical Education, 1st Edition, Helwan University, Al-Kitab Center for Publishing.

Appendix (1)

Shows the mental skill scale

No.	paragraphs	Degree					
		1	2	3	4	5	6
1	I can visualize any kinetic skill in my mind	1	2	3	4	5	6
2	I know very well how to relax in the sensitive times of the match	1	2	3	4	5	6
3	Many thoughts ran through my mind while participating in the match and interfered with my focus	1	2	3	4	5	6
4	I often feel that I will lose in the competition I am in	1	2	3	4	5	6
5	I participate in all competitions and all my thoughts include confidence in myself	1	2	3	4	5	6
6	Before I participate in the competition, I am psychologically prepared to do my best	1	2	3	4	5	6
7	In my mind, players can perform the moves without me preparing them	1	2	3	4	5	6
8	My muscles are tense before I enter the competition	1	2	3	4	5	6
9	It bothers me that I can't focus my attention at the sensitive times of the match	1	2	3	4	5	6
10	I'm afraid of not being good at guiding players during the match	1	2	3	4	5	6
11	When the outcome of the match is not in my favor, my confidence in myself decreases as the match approaches the end	1	2	3	4	5	6

12	It is always better to participate in sensitive and important matches	1	2	3	4	5	6
13	It's hard for me to imagine what I'm going to do during the match	1	2	3	4	5	6
14	It's easy for me to be able to relax my muscles before I compete	1	2	3	4	5	6
15	My problem is that I lose the ability to focus at times in the match	1	2	3	4	5	6
16	When I enter a competition I feel more anxious	1	2	3	4	5	6
17	Throughout the competition I can maintain a high degree of self-confidence	1	2	3	4	5	6
18	I can always get myself excited during a match	1	2	3	4	5	6
19	I always visualize what I will perform in the competition I will be participating in	1	2	3	4	5	6
20	One of my most obvious traits is my ability to calm down and relax myself quickly before entering a sports competition	1	2	3	4	5	6
21	The events and noises outside the stadium help to distract me from playing	1	2	3	4	5	6
22	I get annoyed when he makes some mistakes during the competition	1	2	3	4	5	6
23	I suffer from a lack of confidence in controlling the course of competition	1	2	3	4	5	6
24	I always feel like I'm doing my best throughout the competition	1	2	3	4	5	6