Publishing Scope

The journal (JJPESS) is interested in publishing manuscript in various fields of physical education and sport sciences as following:

* Sports Training.
* Sport and Exercise Psychology.
* Motor Learning.
*Kinesiology.
*Sport Sociology.
* Sport Injuries and Rehabilitation.
*Adapted physical education.
* And all other related topics with sport sciences.
* Health and Exercise Physiology.
* Biomechanics.
*Motor Behavior.
*Sport management.
* Recreation and Scouting.
* Tests and measures.
* Teaching methods.

Instructions

The researcher must commit to using a formal journal template without making any changes to it and to take into account that the scientific manuscript should consist of the following:
1. Manuscript title, name of the author (s), information of the author (s), and email of the corresponding author.

2. The abstract, a concise summary of the manuscript, plays a pivotal role in helping readers determine the study's relevance. It should include the study's objectives, methods, instrument, sample, significant results, and recommendations. Importantly, the abstract should not exceed [250] words and should not contain any documentation or statement of the statistical treatments used in the study.
3. Keywords: keywords should not be more than (3-5) words that express the areas covered by the study, and they must be placed at the bottom of the abstract.
4. The body of the manuscript should include the following elements:
- Introduction: it should include the following sections: the introduction, the problem, the purpose, significance, objectives and limitations of the study
Note: Previous studies should be included in the introduction and importance section.
- Methodology and Procedures: The submitted manuscript should contain the methodology details, the selected sample, the instrument, the procedures, and statistical analysis.
The findings: The results and discussion sections should be stated in one section, with the results presented first, followed by analysis and then the discussion.
Conclusions and recommendations.
The 'List of sources and references' is a critical component of the manuscript, as it validates the study's credibility and allows readers to explore related work. It should be comprehensive, including all sources referenced in the manuscript, and follow the APA style for citation.
5. Tables should be inserted in the body of the study and numbered sequentially according to their occurrence. Their titles should be written above them in Times New Roman font and bold font size (10).
6. The texts within the table should be in Times New Roman font and size (10) bold for column headers and (10) regular font for table text.
7. Graphs and illustrations should be inserted in the body of the study and numbered sequentially. Their titles should be written under them in bold font size (10).
8. The side and inner lines of tables, figures and drawings should be deleted.
9. All study parts should use Arabic numerals (1,2,3).
10. 1.5 lines space should be used.
11. The manuscript page should be inserted in the center of the bottom margin of each page.
12. The font type in the body of the manuscript should be Times New Roman font (10).
13. The title of the manuscript should be in Times New Roman font and size (12) in bold type.
14. The name(s) of the author(s) should be in Times New Roman font, and the font size is (10) in bold type.
15. The author's bio should be in Times New Roman, and the font size is (10) and in bold type.

16. Authors are requested to provide a separate title page with the title of the submitted manuscript, (co-)author names, affiliations and their full contact details, and full references to their work anonymously quoted in the manuscript.
17. Leave margins for the manuscript as follows: (1) inch from the top and bottom, (1.5) inches for the right and left sides.
18. The journal follows the rigorous APA style for citing references, ensuring a thorough and comprehensive review process. This commitment to quality and accuracy should give authors confidence in the publication process.
19. Authors shall attach a copy of the research instruments used in the study if not included in the appendices.
20. The number of pages should not exceed (20) pages.

Journal Policy:

1. Publication in the Jordan Journal of Physical Education and Sports Sciences is free.
2. The journal accepts research in both Arabic and English langue.
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المجلة الأردنية في التربية البدنية وعلوم الرياضة

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المجلة الأردنية في التربية البدنية وعلوم الرياضة

The Level of Quality of Adapted Physical Education Services Provided to Children with Disabilities in Jordan and its Relationship to Some Variables

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Abstract:

The objective of this study was to assess the quality of adapted physical education services offered to children with disabilities in Jordan, as well as to determine whether this quality varies based on the specialization of the service provider, their years of experience, and the sector of the special education center. The study sample comprised 104-day centers for special education. To achieve its objectives, the study employed a descriptive methodology. The researchers developed a measurement tool consisting of 42 items, which were evenly distributed across three dimensions. The validity and reliability of this tool were rigorously established. The findings revealed a low level of quality in the adapted physical education services provided to children with disabilities in Jordan. Among the dimensions assessed, the physical environment of adapted physical education services ranked highest, followed by adapted physical education programs and activities in the second position, and family and professional sports workers in the lowest position. Furthermore, the results indicated statistically significant differences in the quality of adapted physical education services based on the specialization of the provider, favoring sports education specialists, as well as based on years of experience, favoring providers with less than three years of experience. Conversely, no statistically significant differences were found in the overall quality scores of adapted physical education services when analyzed by the sector of the special education center. The study recommends enhancing the quality of adapted physical education services for children with disabilities in Jordan's special education centers. It emphasizes the need to improve the proficiency of service providers in professional and familial communication, particularly for those who lack specialization in adapted physical education.

Key Words: Adapted Physical Education, Children with Disabilities.

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Introduction:

The adapted sports education programs designed for children with disabilities have gained tremendous momentum in their practice and application, therefore becoming an integral part of special education centers. As a matter of fact, licensing of these centers is considered incomplete without the availability of such services, because the level of impact that adapted sports activities induce on the development of children's abilities is enormous and majorly physical in nature. More importantly, these activities influence the psychological, social, educational, and behavioral patterns of development, (Putra, 2019).

The interest in the academic world in adapted sports education can easily be explained by the importance sport activities play in developing motor skills, physical fitness, and physical development in general (Beirat et al., 2023). These activities also go a long way in promoting psychosocial development for children with disabilities in motivating them to learn, understanding sensory stimulations, facilitating communication, and expressing their emotions. This helps them develop and enables them to include themselves and adapt to their surroundings as they grow up. Additionally, the adapted sport activities increase access to transition for adolescents with disabilities to post-school settings. Adapted sports activities increase the chances of transition to post-school settings for students with disabilities.

Although there is recognition of the need for adapted physical education, with services that include a range of programs in developmental activities and games that are specially adapted to children's abilities and interests while taking into consideration the limitation placed by their disabilities; however, significant gaps prevail regarding the quality of these services and activities. These deficiencies contribute to failure to realize the ideal results of this important undertaking; hence, the call for revision of available policies and regulations guiding special education institutions, not forgetting to revisit the credentials of the staff offering these services. This is necessary since the services need to ensure that the children's potential is appropriately fostered.

Children with disabilities usually achieve a lower rate of physical and motor development, where the rate of decline of this type is often related to the severity of their disability. The general characteristics of the physical and health features of children with disabilities are dominated by general weakness, which in turn leads to further fatigue and stress. Children with disabilities differ in their capacity to learn the activities introduced to them, although they do have a set of common characteristics in this regard.

Engagement in physical activity and, correspondingly, in physical education programs exerts a profoundly positive influence on children with disabilities, as it leads to a decrease of stereotypical behaviors. Moreover, brain structures responsible for memory and learning operate more productively and have higher capacity for their development. Hence, involvement in this type of activity might contribute to an improvement in cognitive functions and provoke further neurological development. This is especially crucial for children during the formative stage of overall development. Physical activity also serves as a strong stimulant to enhance the flow of blood, thereby facilitating the delivery of oxygen and nutrients to the brain, which, in turn, goes a long way in enhancing the overall capabilities of children and developing their communication, social, and sports skills considerably (Mills, 2023). In addition to this, Tiner and Pittman (2020) cited that if physical education programs were implemented successfully and at an early age, the reward would be taken throughout one's life because such children consider adaptive behaviors and enhance their skills to deal with any challenge as well as many situations.

With respect to this, physical education becomes a relevant channel for healthy psychomotor development in students with Autism Spectrum Disorder, since there are more open opportunities for integration. This helps develop the principle of full inclusion in educational and societal settings. According to Hortal & Sanchis (2022) , a critical overview of some related research into adapted sports education for people with disabilities has produced some interesting findings. For example, Alattiyat, 2024 assesses the degree of adapted physical education services accorded to young students with autism spectrum disorder who have been enrolled in inclusive education settings in the United Arab Emirates as perceived by their parents. The findings indicated that the services were highly rated, the service dimension being the highest ranked, followed by educational services, cooperation and communication, then awareness and guidance services, and lastly transition services. Significant differences were recorded according to gender-the ratings for male students being higher-and academic stage and severity of the disorder, in favor of students in the milder stage of the autism spectrum disorder. No significant differences existed concerning the educational institution sector.

In relation to the participation in sporting activities among people with intellectual disabilities during the COVID-19, Alma'atani (2023) indicated that the pandemic had a low level of participation for the overall sample size of 87 family members of people with intellectual disability from the region of Makkah. Public facilities rated the highest in a moderate level of participation, while the sports clubs and centers and the home environment were low in their rating for participation. The challenges of participating in sport activities were ranked as moderate.

Aldaily (2023) conducted a study on the effectiveness of sporting activities within disability centers, as witnessed by the center directors. The sample size consisted of 60 directors. The results reflected no statistically significant differences by gender and academic qualifications, though the differences were statistically significant in favor of those participants who had gained more than ten years of experience.

Alhamahami (2021) aimed to explore the professional practices of recreational sports specialists who work with the disabled regarding variables like gender, job role, type of disability, and years of experience. The sample included 60 sports specialists: 35 faculty members and their assistants from different faculties of physical education within various Egyptian universities; and 48 physical education teachers. The results pointed out that no statistical differences in professional practices regarding the preparation, implementation, or evaluation of sports activity units were observed among these specialists. Not even the administrative tasks required to support these professional practices presented statistical differences. According to the study conducted by Shaaban and Aljadani, "the level of applying adapted sports activities for individuals with mild intellectual disabilities is average." Besides, statistically significant differences were noticed in the physical-sensory environment of sports activities due to sector type in favor of the private sector.

Alsulaimani (2021) found a high level of agreement among staff at mainstream schools regarding requirements toward adapted physical education for students with intellectual disabilities; the need for security and safety factors was topmost in the list of necessary provisions. In fact, as the study shows, there are no significant differences with regards to the nature of the staff's work, though there were significant differences according to years of experience, in favor of experienced female staff who had 16 years or more of experience.

Alalawi (2018) reported an average score for the implementation of sports programs for students with special needs in Bahrain, assessed through total quality management principles. Values and trends headed the dimension list, followed by program implementation, educational facilities, and educational goals, while the evaluation and program planning ranked last. This was highly significant and in favor of the more experienced cohort. No difference was established in the degree of application according to educational qualifications and gender. Aleid (2016) emphases the development of quality standards for adapted sports education services in Kuwait. First of all, the daily lesson content standard, general teaching strategy, assessment of students with disabilities, and motor skills and knowledge standard became the quality standards.

Roth and Rimmerman (2009) pointed out some of the challenges that face sports programs for students with special needs; the prominent ones were failure to consider the nature and specific type of disabilities, lack of proper planning to ensure all the students with disabilities involved and family failure to engage in the planning programs for their children.

The above findings review clearly reveals that scholars have continued to express their interest in adapted physical education programs for persons with disabilities. However, no study was found on the quality of adapted physical education services provided to all children with disabilities attending special day education centres and early intervention units in Jordan. This gap underlines the need for more research, especially within the Jordanian context, which has not addressed this critical area satisfactorily.

Research Problem:

The problem this study sought to address was identified from the observations made by the researchers during the field visits conducted in special education centers in Jordan, where a critically low level of quality was observed in adapted physical education services provided for children with disabilities. This has been identified as an important area of services for the children concerned, and appropriate environments were available in some centers to facilitate these services. This can be assessed as a very good way of determining how well they are being executed at present, depending on the commitment of the special education center administrations in seriously improving and upgrading the quality of these services. Specialization of service providers, years of experience, and the type of sector to which the special education center belongs in Jordan are the variables that will affect the delivery of these services.

This problem is further exacerbated by the lack of significant research into the assessment of the quality of adapted physical education services for children with disabilities in Jordan. The researchers, based on this fact, decided to investigate the subject in an accurate scientific context, keeping the research as far as possible from personal opinions and impressions. Thus, this study will attempt to answer the following two research questions.

Research questions:

1- What is the level of quality of adapted physical education services provided to children with disabilities in Jordan?
2- Does the level of quality of adapted physical education services provided to children with disabilities in Jordan differ depending on the specialization of the service provider, his years of experience, and the sector of the special education center?

Significance of the Research:

The significance o this study is evident in two dimensions: theoretical importance and practical importance, each of which is elaborated upon below.
Theoretical Importance:
• The study addresses the critical issue of the quality of adapted physical education services provided to children with disabilities within special education centers in Jordan.
• It assists specialists and educators in educational institutions in assessing the quality level of adapted physical education services available to children with disabilities in special day education centers in Jordan.
• The findings of this research will contribute to effective planning of adapted physical education programs, thereby facilitating the achievement of desired educational outcomes.
• It is anticipated that the results of this study will enrich the Arab academic literature pertaining to adapted physical education for children with disabilities.
Practical Importance:
• The outcomes of the study will inform the development of training programs aimed at enhancing and improving the quality of adapted physical education services, particularly in special education day centers.
• Furthermore, the current study presents a refined tool that can be utilized in future research focused on evaluating the quality of adapted physical education services provided to children with disabilities in Jordan.

Study Limitations and Delimitations:

The limitations of the current study are chiefly outlined by temporal and spatial constraints associated with its execution, considering especially the timeframe for administering the measurement scale of the study and its exclusive concern for day-care special education centers in Jordan.
The delimitations of the study are as follows:
- The validity and reliability of the measurement tool that was used.
-Total number of adapted physical education programs offered through early childhood special education as of the date of the implementation of this study
- Existence: the validity of confirming whether items on the study tool actually exist in the real, natural setting.
In this research, the methodology has been descriptively quantitative.
Methodology and procedure of study:
Population of study and its sample of study:

Methodology:

The targeted population consists of the special education centers and early intervention units in Jordan that provide adapted physical education services to children with disabilities. In Jordan, according to statistics from the Directorate of Day Centers and Early Intervention Units within the Jordanian Ministry of Social Development, there are 37 centers and early intervention units. Moreover, it considers that the number of private centers for special education in Jordan has exceeded 80, inclusive of active and below-standard centers. A sample of 104 early intervention centers and units that are providing day care services in the population was intentionally selected. The distribution of such centers according to the variables of the study are summarized in Table 1.

Table (1). distribution of the study sample by its variables

The variable	Category	Number	Percentage
Service provider specialization	Sports education	44	42.3%
	Special education	60	57.7%
	Total	104	100%
Years of service provider experience	Less than 3 years	30	28.8%
	From three – less than 6 years	37	35.6%
	More than 6 years	37	35.6%
	Total	104	100%
Special education center sector	Special	67	64.4 %
	Government	37	35.6%
	Total	104	100 %

Study Tools: Measurement of the Quality Level of Adapted Physical Education Services Provided to Children with Disabilities in Jordan
In the process of developing the measurement instrument in terms of quality adapted physical education services that are provided for children with disabilities in special day education centers in Jordan, the researchers benefit from the studies of Shaaban and Aljadani (2021), Alalawi (2018), and Aleid (2016). The instrument is comprised of 42 items-that is, indicators-distributed among three domains: the physical environment of adapted physical education services, adapted physical education programs and activities, and qualifications of personnel.

Data collection in this study was implemented through direct field observations, compilation of relevant documents, interviews, and on-site analysis. Responses were measured on the five-point Likert scale whereby the respondents rated their experiences as: (5) always, (4) often, (3) sometimes, (2) rarely, and never (1). Using this scale, the arithmetic mean values were determined using the equation below:

Upper value – the minimum value of the answer alternatives divided by the number of levels, that is:
4÷3 = 1.33 and this value is equal to the length of the category, so the levels of behavioral problems are as follows:

- The low score of 1.00 -2.33
- The average score of 2.34-3.66
- High score from 3.67 - 5.00

Validity of Instrument:

After developing the preliminary APE services quality scale, the researchers measured its validity in terms of both content validity and internal consistency. The latter was assessed through a review process where

nine faculty members from Hashemite University acted as expert reviewers; their recommendations produced the deletion of some items to increase the content validity of the scale.

To establish internal consistency for the items measuring the constructs, an item-total analysis was performed to confirm that each item was compatible with its corresponding dimension. This involved computing the Pearson's correlation coefficient between each item score and both the total score of its corresponding dimension and the overall scale score. These results can be seen in the following table.

Table (2). The coefficients of correlation of the paragraphs of the measure of the quality of physical education services with the total degree of dimension and the total degree of the measure

Paragraph	Correlation with Dimension	Correlation with the total degree	Paragraph	Correlation with Dimension	Correlation with the total degree
1	*273.	*383.	22	*398.	*379.
2	*304.	*308.	23	*559.	*441.
3	*345.	*309.	24	*408.	*325.
4	*220.	*328.	25	*418.	*364.
5	*401.	*354.	26	*375.	*259.
6	*428.	*367.	27	*513.	*390.
7	*469.	*438.	28	*331.	*406.
8	*456.	*397.	29	*336.	*269.
9	*517.	*385.	30	*236.	*310.
10	*328.	*407.	31	*337.	*374.
11	*361.	*438.	32	*500.	*375.
12	*418.	*207.	33	*322.	*441.
13	*449.	*287.	34	*532.	*437.
14	*318.	*340.	35	*265.	*344.
15	*380.	*404.	36	*316.	*299.
16	*246.	*307.	37	*641.	*586.
17	*524.	*425.	38	*394.	*219.
18	*510.	*408.	39	*364.	*320.
19	*416.	*279.	40	*626.	*563.
20	*621.	*424.	41	*414.	*430.
21	*519.	*425.	42	*371.	*533.

* A function statistically at the level of (0.05 =**α**)

Table 2 demonstrates that all correlation coefficients between the items and the overall score of the measurement are statistically significant at the level of α=0.05\alpha = 0.05α=0.05. The correlations of the items with their respective dimensions ranged from 0.220 to 0.641, while the correlations of the items with the total

scale score varied between 0.207 and 0.586. These findings affirm the internal consistency of the scale. Consequently, the final version of the quality measurement for adapted physical education services provided to children with disabilities comprises 42 items.

Reliabilty of Instrument:

To verify the significance of the stability of the estimate on the study instrument, the internal consistency method was used using the (Kuder & Richardson), (Kuder & Richardson equation (20)), and the half-hash method corrected by the (Spearman-Brown) equation was also used, as this method is considered appropriate, especially since the scale is not a speedometer, and this method fits into the set of paragraphs linked to each other (Almunaizel & Alatoom, 2010). Table (3) shows this.

Table (3). The coefficient of constancy of the measure of the quality of PE services using half- hashing using the (Spearman-Brown equation and Richardson equation 20)

Dimension	Number	Semi-fractionation using the (Spearman-Brown equation)	Richardson)20()
Physical environment of adapted physical education services	14	0.80	0.75
Adapted physical education programs and their activities	14	0.81	0.79
Family and professional sports workers communicate	14	0.83	0.78
Total grade	42	0.86	0.80

It is clear from Table (3) that the stability coefficient of the total score of the scale by the half-hash method was (0.86), and by the Richardson equation (20) it was (0.80), and these values indicate that the measure of the quality of adapted physical education services provided to children with disabilities has a good degree of stability that can be relied on in the current study.

Statistical Analysis:

This descriptive study aimed to evaluate the quality of adapted physical education services provided to children with disabilities in special education centers across Jordan. To address the first research question, the study employed arithmetic means and standard deviations for data analysis. In response to the second research question, the researchers calculated arithmetic means and standard deviations based on responses to a quality scale for physical education services. These responses were evaluated according to variables such as the service provider's specialization, years of experience, and the type of sector in which the special education center operates. An Analysis of Variance (ANOVA) was conducted to determine the significance of differences in the overall scale scores, while a multivariate analysis of variance (MANOVA) was used to identify significant differences across the scale's dimensions.

Results and Discussion:

First: The results pertaining to the first research question—*What is the level of quality of adapted physical education services provided to children with disabilities in Jordan, and how does it relate to certain variables?* are presented here.

Calculations of the arithmetic mean and the standard deviations to address this question were made on behalf of the responses of the sample in this study for the quality scale for Adapted Physical Education Services. Such findings are elaborated in Table 4.

Table (4). Arithmetic averages and standard deviations of the responses of the study sample on the scale of the quality of adjusted physical education services provided to children with disabilities dimension ranked in descending order

Rank	Dimension	Arithmetic Average	Standard Deviation	Degree
1	Physical environment of adapted physical education services	2.38	0.42	Medium
2	Adapted physical education programs and their activities	2.16	0.58	Low
3	Family and professional sports workers communicate	2.12	0.50	Low
	Quality of physical education services	2.22	0.41	Low

Table 4 indicates that the grand mean of quality of adapted physical education services provided for children with disabilities was rated as low and the average was 2.22. The highest rated dimension of the physical environment in adapted physical education services was a mean of 2.38, reflecting a moderate level. This was followed by the dimension of adapted physical education programs and activities, which had a mean score of 2.16, falling in the low level. Family and professional sports workers dimensions were at the third position, that recorded a low mean score of 2.12.

Regarding the results of the measure of the quality of physical education services by dimensions, they can be shown in descending order according to their arithmetic averages as follows:

First: Dimension the physical environment of the adapted physical education services.

As shown in Table 5, the grand mean score for the adapted physical education services physical environment dimension was in the moderate range, having an arithmetic mean of 2.38. The individual items means for this dimension ranged from 1.65 to 3.32. The highest ranked item, "The adapted sports activity environment provides grass or felt flooring to protect children in case of falls," received an average score of 3.32 points, reflecting a moderate level. The following item is in the following pattern , "The adapted sports activity environment includes a carpeted or rug-furnished corner that is equipped with all resources needed to support adapted sports activities," followed by the mean score of 2.94, also in the medium level. On the contrary, the lowest ranking item was, "The environment for practicing adapted sports activities includes clear and sufficient guidance boards and manuals with procedures and program instructions," after securing a mean of 1.65.

Table (5). Arithmetic averages and standard deviations of the responses of the study sample at the dimension of the physical environment of the adapted physical education services are in descending order

Rank	Paragraph	Arithmetic Average	Standard Deviation	Degree
1	The adapted sports activity environment provides grass or felt floors to protect the child if it happens and falls to the ground.	3.32	1.49	Medium
2	The environment for practicing adapted sports activity contains a corner furnished with carpets or rugs equipped with all the necessary physical capabilities to practice adapted sports activity.	2.94	1.18	Medium
3	The floor of the adapted sports activity practice environment prevents slipping.	2.92	1.33	Medium
4	In the environment of practicing adapted sports activity, the reality of practicing adapted sports activities is monitored using cameras that allow recording exercises throughout their periods of practice.	2.88	0.86	Medium
5	The adapted sports activity practice environment contains special lockers that allow storing tools and supplies for a child with disabilities.	2.82	1.78	Medium
6	The environment for practicing activities contains various games that suit the needs of a child with disabilities.	2.71	1.04	Medium
7	Safety and security tools are available during the practice of adapted sports activities.	2.47	1.32	Medium
8	The adapted environment for practicing sports activities is devoid of mobility and physical obstacles.	2.06	1.31	Low
9	The sides of the stairs, corridors and slopes leading to the adapted sports activity practice environment contain means of protection that prevent the exposure of people with disabilities to the dangers of falling, such as handrails, for example.	2.05	1.08	Low
10	The spaces of the sports activity environment allow the practice of individual and group activities.	2.04	1.43	Low
11	Good ventilation and lighting conditions, especially in indoor exercise environments, are suitable for the sports activities offered.	1.95	1.38	Low
12	The environment for practicing sports activity contains various auxiliary tools for practicing adapted sports activity.	1.76	1.48	Low
13	The entrances leading to the environment for practicing sports activities facilitate the process of movement of children with disabilities and their safe arrival.	1.69	1.29	Low
14	The adapted sports activity practice environment contains clear and sufficient boards and manuals that include the procedures and instructions followed in the program.	1.65	1.31	Low
	Physical environment of adapted physical education services.	2.38	0.42	Medium

Second: Dimension of the adapted physical education programs and their activities.

Table (6). Arithmetic averages and standard deviations of the responses of the study sample at the dimension physical education programs and their activities are in descending order

Rank	Paragraph	Arithmetic Average	Standard Deviation	Degree
1	The presentation of sports activities is accompanied by an atmosphere of enthusiasm, fun and music.	2.78	0.82	Medium
2	Adapted sports activities are commensurate with the abilities of children with physical disabilities.	2.52	1.31	Medium
3	Adapted physical education programs are developed based on Written plans containing sports activities.	2.49	1.28	Medium
4	Individually adjusted sports activities are applied.	2.38	1.39	Medium
5	Adapted sports activities allow the flexibility of adjustment in exercise.	2.35	1.34	Medium
6	The adapted sports program determines the date and time of the start and end of the teaching and training of each goal.	2.15	1.30	Low
7	The child's performance level is documented after each adapted sports activity on which he is trained.	2.09	1.34	Low
8	Adapted physical education activities vary with the diversity of age groups.	2.07	1.50	Low
9	Adapted sports activities allow a gradual transition from simple skills to hard skills as required by the abilities of children with disabilities.	1.99	1.22	Low
10	Children are given enough time to learn and train on adapted sports activities.	1.92	1.36	Low
11	Adapted physical education activities are adapted to the type of disability of the child.	1.92	1.40	Low
12	Adapted sports activities allow parents to share with their children while children are engaged in sports activities.	1.91	1.31	Low
13	A trained specialized staff is available to apply the adapted sports activities.	1.82	1.32	Low
14	In the implementation of the adjusted sports activity, the number of children per activity or coach is taken into account.	1.80	1.25	Low
	Adapted physical education programs and their activities.	2.16	0.58	Low

Table 6 indicates that the overall mean for the *adapted sports education programs and activities* dimension was low, with an arithmetic mean of 2.16. The mean scores for individual items ranged from 1.80 to 2.78. The item, *"Sports activities are conducted in an atmosphere of enthusiasm, fun, and music,"* ranked highest, with a mean score of 2.78, indicating a moderate level. The item, *"Adapted sports activities are aligned with the abilities of children with physical disabilities,"* followed in second place, with a mean score of 2.52, also reflecting a moderate level. Conversely, the item, *"The number of children per activity or per coach is considered in implementing adapted sports activities,"* ranked last, with a low mean score of 1.80.

Third: Dimension the communication of family and professional sports workers

Table (7) shows that the overall average dimension of communication of family and professional sports workers was low, with an arithmetic average of (2.12), while the arithmetic averages of paragraphs ranged between (1.82 and 2.96), and the paragraph stating "employees on the implementation of sports activities inform the management of the center at the level of a child with physical disabilities and updates of their work periodically" came in the first rank with an arithmetic average (2.96) with an average degree, followed by in the second place the paragraph stating "those responsible for implementing sports activities provide parents with the paragraph stating that" those responsible for implementing sports activities communicate with the child's family in their natural environments if necessary " came in the fourteenth and last rank with an average of 1.82 with a low degree.

Table (7): Arithmetic averages and standard deviations of the responses of the study sample at the dimension of communication of family and professional sports workers in descending order

Rank	Paragraph	Arithmetic Average	Standard Deviation	Degree
1	Employees on the implementation of sports activities inform the management of the center at the level of a child with physical disabilities and periodically update their work.	2.96	1.17	Medium
2	Those responsible for the implementation of sports activities provide parents with appropriate ways of dealing with their child with disabilities.	2.38	1.44	Medium
3	Those responsible for the implementation of sports activities provide the family with periodic feedback on the performance of a child with disabilities in adapted sports activities.	2.25	1.38	Low
4	Those responsible for implementing sports activities involve children with disabilities who benefit from adapted sports education services in national or international sports competitions.	2.23	1.33	Low
5	Those who carry out sports activities communicate with families in various ways, including organized correspondence and telephone communication.	2.22	1.34	Low
6	Those responsible for carrying out adapted sports activities periodically inform the family of a child with disabilities about the level of performance of their child.	2.18	1.42	Low
7	Those responsible for the implementation of sports activities provide opportunities for sports cooperation between the center and sports clubs.	2.04	1.31	Low
8	Those responsible for implementing sports activities communicate with other specialists working at the center in order to integrate the roles provided for the benefit of children with disabilities.	1.99	1.29	Low
9	Those responsible for the implementation of sports activities involve the family of a child with disabilities in the implementation and evaluation of the goals of the plans.	1.97	1.26	Low
10	Those who carry out sports activities deliberately educate the parents of a child with disabilities about the child's condition and the nature of his physical problem.	1.96	1.32	Low

11	Those responsible for implementing sports activities communicate with other adapted physical education specialists working in other programs in order to develop their professional abilities, exchange experiences and get acquainted with the latest practices in their field.	1.95	1.38	Low
12	Those responsible for implementing sports activities provide the child's family with opportunities to participate in meetings, workshops and activities held by the program.	1.90	1.42	Low
13	Employees working on the implementation of sports activities use video communication in emergency situations.	1.88	1.37	Low
14	If necessary, those responsible for carrying out sports activities communicate with the child's family in their natural environments.	1.82	1.37	Low
	Family and professional sports workers communicate	2.12	0.50	Low

Second: the results related to the answer to the second question, which is:

Does the level of quality of adapted physical education services provided to children with disabilities in Jordan differ depending on the specialization, years of experience and sector of the special education center?

To answer this question, the arithmetic averages and standard deviations of the responses of the study sample were calculated on the scale of the quality level of PE services provided to children with disabilities depending on variables such as specialization of the provider, years of experience of the provider and sector of the Special Education Center. In this context , the analysis of variance (ANOVA) was used to find out the significance of differences in the overall score of the scale. Furthermore, the analysis of multiple variance (MANOVA) was used to find out the significance of differences in the dimensions of the scale, as shown in Table No. (8).

Table (8). Arithmetic averages and standard deviations of the responses of the study sample on the scale of the quality of adjusted physical education services provided to children with disabilities depending on the study variables

Variable	Category	Number	Arithmetic Average	Standard Deviation
Specialization	Sports education	44	2.38	0.48
	Special education	60	2.10	0.31
Years of experience	Less than 3 years	30	2.53	0.50
	From three – less than 6 years	37	2.24	0.23
	More than 6 years	37	1.94	0.25
Special education centers sector	Special	67	2.26	0.43
	Government	37	2.14	0.35

The findings presented in Table 8 indicate noticeable differences in the mean responses of the study sample on the quality scale for adapted physical education services provided to children with disabilities, according to variables such as provider specialty, provider years of experience, and the sector of the special education center. To assess the significance of these differences, an analysis of variance (ANOVA) was conducted, with the findings detailed in Table 9.

Table (9). The results of the (ANOVA) variance analysis test to determine the significance of differences in the measure of quality of physical education services depending on the study variables

Source of variability	Sum of squares	Degree of freedom	Squares Average	Value((Q)	Level of significance
Specialization	0.954	1	0.954	9.066	*0.003
Years of experience	4.758	2	2.379	22.598	*0.000
Sector	0.057	1	0.057	0.546	0.462
The mistake	10.421	99	0.105		
Total adjusted	17.234	103			

* Statistical significance at the level of (0.05 =**α**)

Table 9 statistically demonstrates significant differences in the quality of adapted physical education services provided to children with disabilities, based on the specialization variable. Specifically, the F-value was 9.066 with a significance level of 0.003, showing that the mean score for physical education teachers exceeded that of special education teachers. The findings further indicate no statistically significant differences in service quality based on the sector of the special education center, with an F-value of 0.546 and a significance level of 0.462, which is not statistically significant.

In contrast, significant differences were observed in service quality according to the years of experience variable, with an F-value of 22.598 and a significant level of 0.000. To identify the source of these differences, a Scheffé post-hoc test was performed, and the results are provided in Table 10.

Table (10). The (Scheffe) test for dimensional comparisons in the level of quality of physical education services provided to children with disabilities adjusted according to the variable of years of experience

Years of experience		The difference between the averages (I-J)	Semantics
I	J	*2893.	0.002
Less than 3 years	From three – less than 6 years	*5924.	0.000
Less than 3 years	More than 6 years	*3031.	0.001
From three – less than years 6	More than 6 years	*2893.	0.002

Table 10 reveals statistically significant differences in the quality of adapted physical education services provided to children with disabilities across different experience categories. Specifically, significant differences were observed between those with less than 3 years of experience and those with 3 to less than 6 years, as well as those with more than 6 years of experience. The mean response score for workers with less than 3 years of experience was higher than that of both other groups. Additionally, significant differences were found between the 3 to less than 6 years category and the more than 6 years category, with the former group showing a higher mean response score than the latter.

Discussion :

Discussion of the results pertaining to the first question:

The findings of the study indicate a decline in the overall quality of physical education services provided to children with disabilities in Jordan. The researchers attribute this decline to a lack of adequate attention to the provision of adapted physical education services. The services offered by the special education centers and early intervention units examined in this study primarily focus on educational, instructional, and caregiving aspects. Additionally, the limited capacity of these centers, many of which operate from rented

facilities, hinders their ability to deliver appropriate adapted physical education services. This issue is further exacerbated by a deficiency in resources, equipment, and support available to these centers and units.

Moreover, the results of the current study align with findings from Foley, Bryan, and McCubbin (2008), which reported a low level of sports activities available to children with disabilities, both within educational settings and during public holidays. In contrast, the present study's outcomes diverge from those of Alalawi (2018), who found an average level of implementation of sports programs for students with special needs in Bahrain, as assessed through the lens of Total Quality Management. Similarly, the results differ from those of Shaaban and Aljadani (2021), which indicated an average degree of implementation of adapted sports activities for individuals with mild intellectual disabilities.

In interpreting the results through the lens of the adapted physical education services quality scale, the researchers attribute the average assessment of the physical environment dimension to the variability observed among the special education centers and early intervention units included in the study. Some of these centers, particularly those that are newly established, prioritize the creation of suitable environments for the delivery of physical education services. Conversely, older facilities often face challenges related to inadequate funding and insufficient support, which hinder their ability to offer an appropriate setting for engaging in sports activities.

Moreover, inconsistent adherence to established standards, suboptimal design of physical facilities, and inadequate routine maintenance may contribute to the gradual deterioration of the physical environment. Facilities and equipment that are not subject to regular maintenance may become unsafe or unsuitable for use, which potentially elucidates the findings of the current study.

The researchers further reveal the inclusion of the statement regarding the adapted sports activity practice environment, which highlights the provision of grass or felt flooring designed to cushion a child in the event of a fall. This emphasis reflects the commitment of special education centers and early intervention units in Jordan to ensure the safety of children with disabilities by creating a secure environment that minimizes the risk of injury. Additionally, these centers are motivated to comply with licensing requirements, wherein the provision of felt flooring is a fundamental criterion for safeguarding children during physical activities. Failure to meet this requirement could block the center's ability to obtain or renew its license.

The drive to accommodate the unique needs of children with disabilities and to facilitate their active participation in sports activities further explains the diligence of the administrations of these centers and early intervention units in providing grass or felt flooring for protection during physical engagement. Educational literature substantiates the notion that environments fostering active participation contribute significantly to the development of both physical and social skills among children.

The two researchers attribute the placement of the statement, “the adapted sports activity practice environment contains clear and sufficient guidance boards and manuals that include the procedures and instructions followed in the program,” at the end of their discussion to the perception of early intervention center and unit staff that verbal instructions and guidance are sufficient. This perspective may result in insufficient emphasis on the necessity of displaying written guidance through installed boards. A lack of attention to such instructional materials may contribute to an inadequate focus on providing clear educational guidelines in adapted sports environments.

Educational literature suggests that some environments prioritize physical elements, such as equipment and flooring, at the expense of offering adequate guidance. Additionally, the differing priorities among the various departments within these centers may significantly impact their willingness to provide instructional boards, manuals, and guidelines. Some centers may prioritize what they perceive as more critical needs, such as the provision of sports equipment or ensuring the safety of children, thereby leading to the neglect of the installation of clear signage and guidelines.

Conversely, the researchers attribute the low assessment of the dimension pertaining to adapted physical education programs and their activities to the tendency of departments within special education centers and early intervention units, along with their personnel, to prioritize academic programs over the provision of adapted physical education services. Furthermore, the evaluation and review processes for programs designed for children with disabilities are insufficiently robust, which undermines the inclusion of adapted physical education programs as essential offerings within these centers.

Additionally, the stagnation in the development of adapted sports programs, coupled with their inadequate updates to address the evolving needs of children with disabilities, contributes to diminished interest in these services. This issue is exacerbated by a lack of financial and human resources, as well as insufficient training for staff members. Educational literature underscores the necessity for effective programs to be regularly updated in light of contemporary research and the changing requirements of students. Continuous professional development for staff in the best practices and educational strategies tailored to children with disabilities is equally important.

As a result, the findings of the current study contrast with those of Alalawi (2018), which indicated a high degree of implementation for sports programs targeting children with special needs in the Kingdom of Bahrain.

The researchers articulate the inclusion of the statement, "the provision of sports activities is accompanied by an atmosphere of enthusiasm, fun, and music," at the outset to underscore the significance of fostering motivation and encouraging children with disabilities to engage in sports and exercise. Music plays a pivotal role in this context, as it facilitates interaction among children and contributes positively to their psychological well-being by alleviating stress and anxiety associated with physical activities.

In contrast, the researchers place the statement regarding "the implementation of adapted sports activities, which indicates the number of children per activity or trainer," at the end of their discussion. This placement reflects the practice among personnel providing adapted sports education services to follow an individualized curriculum, whereby training is limited to one child per session or an adapted activity. Furthermore, the diversity of physical abilities and the types of disabilities present in the children does not support the feasibility of training them together in a single session. Additionally, the lack of human resources and insufficient emphasis on applying relevant standards, such as the ratio of children to trainers, exacerbate this issue.

The researchers attribute the low assessment of the dimension related to communication between families and professional sports workers to the fact that responsibility for effective communication does not solely rest with the employees providing adapted sports education services; rather, it falls within the purview of the departments of special education centers and early intervention units. Factors such as insufficient communication skills, time constraints, differing expectations and objectives between employees and families, limited family involvement, cultural differences, and bureaucratic hurdles contribute to poor communication outcomes. Educational literature emphasizes the importance of cultivating a supportive communication culture and fostering continuous collaboration among all stakeholders involved.

Consequently, the findings of the current study align with those of Shaaban and Aljadani (2021), particularly regarding the dimension of the role of teachers of children with disabilities in facilitating sports activities, which similarly identifies family communication as a low priority. However, this study differs in that the role of teachers in activating sports activities was rated as average rather than low, as indicated in the current findings.

Furthermore, the researchers explain the placement of the statement, "workers implementing sports activities inform the center's management about the progress of children with physical disabilities and provide periodic updates on their work," at the beginning of their discussion. This placement reflects the obligation of service providers to submit reports on their professional performance to the management of the center, which necessarily includes details about their responsibilities towards children with disabilities, as well as their skills and training. Additionally, providing the management with updates on the status of children with disabilities may align with the instructions and requests that service providers are required to fulfill, given that they are held accountable for these duties.

In contrast, the placement of the statement, "those who conduct sports activities do so with the child’s family in their natural environments, if necessary," at the end indicates that service providers are typically restricted to working within the confines of the center and early intervention units. They are often prohibited from engaging with the families of children with disabilities in their natural environments, such as their homes. This limitation is particularly relevant for service providers in private sector special education centers. Moreover, there is frequently no pressing need for interaction with families in their natural settings, coupled with time constraints and logistical challenges that may impede access to these environments.

Discussion of the results pertaining to the second question:

Regarding the existence of statistically significant differences in the overall score of the measure of the quality level of adapted physical education services provided to children with disabilities, the results indicate a significant advantage for physical education teachers based on the specialization variable. The researchers attribute this finding to the superior performance of physical education teachers, who possess greater expertise in adapted physical education programs and activities compared to special education teachers, whose roles are often confined to delivering educational services. The presence of well-developed training, experience, and the capacity of physical education teachers to assess the abilities of children with physical disabilities, along with their proficiency in adapting activities and engaging in continuous professional development, contribute to these observed differences favoring physical education specialists. Consequently, the findings of the current study contrast with those of Alalawi (2018), which found no statistically significant differences based on the academic qualifications of service providers.

Furthermore, the researchers attribute the absence of statistically significant differences in the overall score of the quality measure for physical education services provided to children with disabilities according to the variable of the special education center sector to the proportion of special education centers within the private sector included in the current study, which stands at 64.4%, compared to 35.6% for government-operated special education centers and early intervention units. This divergence in findings contrasts with those of Shaaban and Aljadani (2021), who reported statistically significant differences in the realm of physical sensory environment sports activities based on sector type, favoring the private sector.

Conversely, the researchers identify the presence of statistically significant differences in the overall score of the quality level of adapted physical education services provided to children with disabilities based on the variable of the service provider's years of experience, with a particular advantage for those with less than three years of experience. This observation is attributed to the relatively recent emergence of adapted physical education as a specialty. Teachers with less than three years of experience tend to be more dynamic and motivated to demonstrate their professional competencies in providing adapted physical education services while simultaneously seeking career stability. This drive is often directed towards employment in the private sector, where there is less tolerance for incompetence and a greater likelihood of contract termination. Thus, the current study's results diverge from those of Alsulaimani (2021), which indicated significant differences favoring respondents with 16 or more years of experience. Additionally, the current study's findings contrast with those of Alalawi (2018), which reported significant differences based on years of experience, favoring those with more than ten years of experience.

Conclusion:

The present study investigated the quality level of adapted physical education services provided to children with disabilities in Jordan, examining the impact of variables such as the specialization of the service provider, years of experience, and the sector of the special education center. This research is situated within the broader context of assessing the quality of physical education services tailored to children with disabilities, recognizing that these services have been modified to align with the unique characteristics of this population. As such, the current study represents a comprehensive exploration of adapted physical education services across all disability categories within both governmental and private special education centers. Its significance lies in addressing the quality of these services in light of variables that are closely related to the practical realities of service provision and the environments in which special education services are delivered.

The observed low quality of adapted physical education services for children with disabilities underscores the urgent need for improvements, given their critical role in fostering the physical and other developmental capacities of these children. The presence of differences in the overall quality level of these services, particularly with respect to the specialization of the service provider—favoring sports education specialists—and the years of experience—favoring less experienced providers—suggests a need for the professional development of adapted physical education service providers who lack expertise in physical education sciences. Additionally, there is a need to enhance the competencies of those with more years of experience to ensure delivery of high-quality services.

Moreover, the findings of this study highlight the necessity for further research to investigate the extent to which these variables influence the physical abilities of children with disabilities in Jordan, which should be considered in programs designed for this demographic.

Recommendations:

Based on the findings of the study, the researchers recommend conducting additional investigations to evaluate the quality of adapted physical education services in relation to variables not addressed in the current research. Such variables include the type of disability, the specific types of adapted sports activities, the operational duration of special education centers, and other dimensions of service quality that were not examined.

Furthermore, the researchers advocate for the enhancement of adapted physical education services within special education centers, given their critical role in developing the capabilities of children with disabilities to achieve their intended goals. They emphasize the necessity of concentrating on the content of adapted physical education programs and the diverse activities they encompass. Additionally, they recommend implementing strategies to improve professional and familial communication among sports professionals and advocating for the academic and practical rehabilitation of service providers, particularly those who lack specialization in adapted physical education. There is also a call to encourage the involvement of families of children with disabilities in the adapted sports programs provided for their children.

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مستوى جودة خدمات التربية الرياضية المعدلة المقدمة للأطفال ذوي الإعاقة في الأردن وعلاقته ببعض المتغيرات

الملخص :

هدفت الدراسة التعرف إلى مستوى جودة خدمات التربية الرياضية المعدلة المقدمة للأطفال ذوي الإعاقة في الأردن، وفيما إذا كان ذلك المستوى يختلف تبعاً لتخصص مقدم الخدمة وسنوات خبرته وقطاع مركز التربية الخاصة، تكونت عينة الدراسة من (104) مراكز نهارية للتربية الخاصة، ولتحقيق أهداف الدراسة اتبعت الدراسة المنهج الوصفي، ولتحقيق أهداف الدراسة قام الباحثان بتطوير أداة تكونت من (42) وزعت بالتساوي على ثلاثة أبعاد، وقد تحقق الباحثون من دلالات صدقها وثباتها.

أظهرت النتائج انخفاض مستوى جودة خدمات التربية الرياضية المعدلة المقدمة للأطفال ذوي الإعاقة في الأردن، وقد تصدّر بُعد البيئة الفيزيائية لخدمات التربية الرياضية المعدلة في الترتيب الأول، وبُعد برامج التربية الرياضية المعدلة وأنشطتها في الترتيب الثاني، في حين جاء بُعد تواصل العاملون الأسري والمهني الرياضي في الترتيب الثالث والأخير. كما أظهرت النتائج وجود فروق ذات دلالة إحصائية في مستوى جودة خدمات التربية الرياضية المعدلة المقدمة للأطفال ذوي الإعاقة تبعاً لمتغير التخصص لصالح المتخصصين بالتربية الرياضية، ولمتغير سنوات الخبرة لصالح العاملين الذين قلت سنوات خبرتهم عن 3 سنوات.

من جهة أخرى، لم تظهر النتائج عن وجود فروق ذات دلالة إحصائية في الدرجة الكلية لمقياس مستوى جودة خدمات التربية الرياضية المعدلة تبعاً لمتغير قطاع مركز التربية الخاصة.

الكلمات المفتاحية: التربية الرياضية المعدلة، الأطفال ذوي الإعاقة.

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المجلة الأردنية في التربية البدنية وعلوم الرياضة

Cognitive Outcomes in Athletics among Students of Field Training at the Hashemite University

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Abstract:

The objective of the study was to identify the cognitive outcomes in athletics among students of field training at the Hashemite University, as well as identify the differences in the cognitive outcome according to two variables (gender and cumulative average). The researchers used the descriptive survey method on the study sample consisting of field training students specializing in sports management and training in the Faculty of Physical Education and Sports Sciences at the Hashemite University, (N = 90), with male and female students representing 80% of the total population of the study. The researchers prepared a multiple-choice scale to measure the cognitive outcomes according to the historical, legal, skill, and training domains. The findings showed a clear weakness in general among students in the cognitive outcomes in athletics in the total domains of the study, (M = 19.78) and a relative importance of (39.56%). The findings also revealed that there were no statistically significant gender disparities in the study's historical, legal, and skill components, while it was discovered that there were statistically significant gender-related variations in the training component, in favor of males. According to the findings, there were no statistically significant differences across all study domains for the cumulative average variable. To avoid the apparent weakness in the cognitive outcomes of field training students, the researchers recommended paying attention to the theoretical aspects of teaching athletics, athletics management, and training. The researchers also suggested conducting similar studies in other sports to understand the cognitive outcome of students in those sports.

Key Words: Cognitive Outcome, Athletics, the Hashemite University.

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Introduction and Importance of study:

In recent times, we are witnessing significant advancements across numerous domains of life, largely driven by science and cognitive frameworks, both of which are regarded as fundamental keys to humanity's future. To foster such progress, developed nations have cultivated environments conducive to the growth of creative minds and thinkers, facilitating the transfer of knowledge and the accumulation of cognitive structures across generations. Al-Humaidan (2019) describes cognition as the accumulation of experiences based on specific patterns, enabling individuals to respond to particular situations in predetermined ways. Human cognition arises from mental processes such as contemplation, observation, practice, and experimentation. Al-Kharsha (2018) further defines cognition as a complex of meanings, perceptions, opinions, observations, and facts formed through individuals' repeated efforts to understand their surroundings and various phenomena. According to Owaida (1995), a substantial portion of any achievement can be credited to the cognitive and civilizational frameworks we inherit from past generations, as well as the advancements they established to prepare for current and future progress. Alkhaldi and Alawamla (2013) argue that cognition has evolved beyond a theoretical concept of gathering and presenting information and data in an abstract, unstructured manner. Instead, cognition is now understood as a dynamic process involving the acquisition, transfer, and sharing of knowledge. Rich (2012) further emphasizes that development within modern societies is shaped by contemporary trends and societal goals, which societies themselves are responsible for guiding. Physical education exemplifies one area of development within these societies, thus placing a responsibility on educators to foster advancements in the field and to maintain knowledge relevant to modernity. Al-Thahir et al. (2007) underscore that educational institutions are fundamentally concerned with cognitive achievement, as it reflects the learning outcomes they aspire to attain. These institutions strive to achieve high levels of cognitive accomplishment as a means of fulfilling their educational objectives.

Shatnawi and Bani Hani (2008) define sports cognition as a collection of opinions and concepts associated with specific sporting phenomena or events, encompassing their historical context, interconnected sports, and relevant terms and symbols. Al-Wazir (2000) views sports cognition as the cognitive development arising from the relationship between physical activity and sports practice and the values, experiences, and cognitive concepts acquired through engaging in these activities.

The university stage, as noted by Al-Zubaidi and Abdullah (2018), is a pivotal period in a student's life, significantly influencing both their present and future, as well as the broader society they inhabit. Students' roles during this stage should not be peripheral, as they represent a guiding light for the future of their country. Thus, it is essential to equip them with diverse scientific knowledge and cognitive skills to help bridge the gap between their society and more advanced ones. Hashem (2002) asserts that a key responsibility of educators is to teach students how to apply cognitive strategies to overcome performance-related challenges. Farhan (2014) further emphasizes the teacher's role in the educational process, which is a structured and systematic approach where exams and evaluations serve as essential tools to assess the mastery levels of students or athletes in specific subject areas.

Shawkat (2014) highlights the importance of constructing assessments based on cognitive and conceptual foundations, ensuring they encompass the material to be evaluated and account for individual differences in cognitive proficiency. Similarly, Trautwein (2009) proposes that cognitive skills can be assessed by evaluating responses to specific stimuli, allowing educators to gauge cognitive outcomes through tests developed from conceptual models aligned with the material. According to Al-Rahhala (2007), drawing on Al-Wazir, cognitive assessments consist of a series of written oral or visual questions designed to measure an individual's performance in specific domains of cognitive or perceptual activity at various levels of cognitive organization.

To illustrate this, several researchers have investigated the significance of cognitive achievement among students and athletes across various sports disciplines. For instance, Al-Eid (2019) and Popovic et al. (2016) employed a cognitive outcome scale, revealing notable differences in cognitive outcomes among athletes from different sports.

In a related study, Alkhaldi and Alawamlah (2013) examined the cognitive outcomes among football players, focusing specifically on their understanding of football regulations. The findings, which showed an average awareness level of 57% on the overall assessment, indicated a moderate familiarity with football laws among players in Jordan's professional football league clubs.

Recognizing the importance of graduates' proficiency in their respective fields, particularly in physical education, Al-Hadidi (2013) aimed to assess the cognitive competence of physical education teachers in health-related physical fitness within the University Directorate of Education in the Capital Governorate (Amman). Statistical analysis revealed no significant differences in teachers' cognitive competence in health-related fitness based on gender, with the exception of the area of exercise physiology, where male teachers demonstrated a higher level of competence.

Additionally, Gukhshaw (2012) aimed to evaluate the competence of fitness trainers in health-related fitness and to develop a cognitive competence scale specifically for fitness trainers. The results indicated that fitness center trainers demonstrated a moderate level of cognitive competency in health-related fitness, achieving an overall score of 51% on the assessment. However, within the seven domains of study, the level of cognitive competency among fitness center trainers in Jordan ranged from moderate to weak.

Shawka, Al-Rahahla (2007) conducted a study to determine the level of cognitive outcome in the field of physical fitness for students at the University of Jordan and Yarmouk University.The results showed a significantly weak cognitive outcome for students of the two universities, and the results also showed a rise in the cognitive outcome from one academic year to another. Additionally, in reviewing similar studies, we find the study by Al-Hatamala (2002) which examines the cognitive outcomes of students and coaches in volleyball. The results of the study revealed that the cognitive outcome of volleyball players in Jordan is low, but it was good for coaches. It also showed that the level of academic accomplishment and experience has a major influence on the level of cognition of players and coaches.

In summary, studies examining cognitive outcomes within athletics remain limited. However, Al-Khasawneh and Al-Zoubi (2007) conducted a study in this context to assess the cognitive levels of athletes and coaches in Jordan. The study concluded that athletes demonstrated an average level of cognitive achievement, while coaches exhibited slightly higher cognitive outcomes.

To keep pace with the global development of athletics, the researchers highlight the importance of students' understanding of the sport, including its history, governing rules, as well as its technical and training components. This study was undertaken with the belief that its findings would be valuable in assessing the extent to which field training students possess scientific knowledge in athletics, and that these insights would aid in the teaching of athletics, including its management and training. Additionally, the study aimed to measure the degree of scientific cognitive achievement in athletics among field training students. It is anticipated that this research will serve as a foundation for further studies exploring additional variables and other sports.

Statement of Problem:

The researchers have observed that certain educators expressed concerns regarding the inadequate performance of some field training students and their inability to deliver effective physical education lessons, attributed to their lack of proficiency in various sports. This observation aligns with the findings of Al-Rahhala and Shawka (2007), which further stimulated the researcher's interest and prompted the initiation of this study to investigate the cognitive outcomes in athletics for field training students at the Hashemite University.

The purpose of this study is to evaluate the students' level of understanding and their cognitive competencies related to contemporary athletic practices. Additionally, the research aimed to address the issue of cognitive deficiencies in athletics, should such deficiencies be identified among the students.

Objectives of the Study: The objectives of the study aim to respond to the following two questions:

- What is the Cognitive outcome in athletics among students of field training at the Hashemite University in accordance with the following domains: historical, legal, skill, and training?

- Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) , at the cognitive outcome of athletics among students of field training at the Hashemite University in relation to the gender variable (male/female) ?

- Are there statistically significant differences at the significance level ($\alpha \leq 0.05$), at the cognitive outcome of athletics among students of field training at the Hashemite University in terms of the cumulative average variable?

Limitations of the study:

Human Limitation: Students of the Faculty of Physical Education and Sports Sciences at the Hashemite University within the specialization of management and sports training and registered in the field training course
Spatial Limitation: Faculty of Physical Education and Sports Sciences at the Hashemite University, Zarqa, Jordan.
Time: the first semester of the academic year 2020/2021.

Terminology:

Cognitive Outcome: A set of multiple cognitive patterns gained through academic education, courses, and experiences (Gouzman & Kazulin, 2005; Al-Hawary, 2003).

Methodology and Procedures:

Methodology:

Because it is most relevant to the phenomena, the study relied on the descriptive approach, which seeks to describe the phenomenon as it is before analyzing and interpreting it

Population:

The population of the study comprised Students of the Faculty of Physical Education and Sports Sciences at the Hashemite University, who were registered for the field training course, first semester, for the academic year 2020/2021.

The sample:

The study sample consisted of students of the Faculty of Physical Education and Sports Sciences who were registered for the Field Training Course for the first semester of the academic year 2020/2021, (N=90) male and female students representing (80%) of the total community, table (1) shows the distribution of the study sample members depending on the variables.

Table (1). Distribution of the sample members based on gender and cumulative average

Variable	Category	N	Percentage
Gender	Male	56	62.2
	Female	34	37.8
	Total	90	100
Variable	**Category**	**N**	**Percentage**
Cumulative Average	Less than 2.5	27	30
	2.5 - 2.99	54	60
	3.0 – 3.49	9	10
	Total	90	100

Instruments of the study:

The researchers prepared a scale (a questionnaire) as a tool for collecting data and information consisting of the four domains: **historical, legal, skill, and training** - and (50) multiple-choice questions to measure the cognitive outcome in athletics among students of field training at the Hashemite University. The correct answer was given one mark and zero for the incorrect answer.

Validity of Instrument:

The tool was distributed to experts from faculty members with expertise in Physical Education. They assessed the accuracy of each statement, its relevance to its area, and its suitability to accomplish the objectives of the research, along with its relevance, conciseness, linguistic integrity, and lack of repetition. A few linguistic and typographical changes were made in response to the experts' suggestions. The experts indicated that the tool is valid to measure the cognitive outcome in athletics.

Reliability of Instrument:

To ensure the scale's reliability, the researchers used Cronbach's alpha equation by applying it to (22) male and female students, and achieved a reliability coefficient of (0.86), indicating that the tool has an appropriate reliability coefficient.

Statistical Methods:

To analyze the data, the Statistical Packages for Social Sciences (SPSS) program was used, and the following statistical elements were calculated:

1. Cronbach's alpha coefficient for calculating the reliability of the study tool.
2. Calculating the means and standard deviations, percentages, and MANOVA analysis were used.

Results and Discussion:

The First Question: What is the cognitive outcome in athletics for students of field training at the Hashemite University according to the following domains: (historical, legal, skill, training)?

To answer this question, the means and standard deviations of the domains of the cognitive outcome in athletics for students of field training at the Hashemite University were calculated for each domain individually and for the domains as a whole. This is as shown in Table (2):

Table (2). Means and standard deviations of the domains of the cognitive outcome in athletics among students of field training at the Hashemite University

No	Domain	Mean	SD	Total Degree	percentage
1	historical	4.53	2.08	10	%45.33
2	legal	6.41	2.64	15	%42.74
3	skill performance	4.83	2.32	14	%34.52
4	training	4.00	1.72	11	%36.36
	Total	19.78	5.98	50	%39.56

As indicated in the table above, the cognitive outcomes in athletics among field training students were found to be weak, with an overall percentage of 39.56% and a total mean score of 19.78. Within the various domains assessed, the historical domain exhibited the highest percentage at 45.33%, with a mean score of 4.53. This was followed by the legal domain, which recorded a percentage of 42.74% and a mean score of 6.41. The training domain ranked third, with a percentage of 33.6% and an average score of 4.00. Lastly, the skill performance domain demonstrated the lowest performance, with a percentage of 34.52% and a mean score of 4.83.

The researchers recognize the imperative to address the issue of a pervasive deficiency in cognitive competencies related to athletics among field training students in the Faculty of Physical Education and Sports Sciences at Hashemite University, who are on the brink of entering the labor market. It is conceivable that similar deficiencies may exist in other practical subjects. This situation serves as a critical warning that warrants attention and intervention. Consequently, a thorough review of the study materials and their intended outcomes is essential to enhance the cognitive development of students.

With respect to the ranking of domains, the researchers contend that the historical domain occupies the highest position. This is attributed to the fact that many questions within the historical domain of athletics pertain to the history of the Olympic Games, suggesting that students possess some knowledge acquired from external sources, particularly regarding the Olympic Games. Conversely, the skill performance domain, which ranked the lowest, reflects a deficiency in students' understanding and their inability to conceptualize effective performance and the appropriate models of athletic skills. This inadequacy adversely impacts the transfer of cognitive skills from field training students (teachers) to school students (learners). This finding is consistent with the study conducted by Al-Khasawneh and Al-Zou'bi (2007), which asserts that coaches and athletes often lack essential skills that facilitate growth and achievement, highlighting the close relationship between movement mechanics and skill performance.

- **The second Question: Are there statistically significant differences at the significance level ($\alpha \leq 0.05$), at the cognitive outcome of athletics among students of field training at the Hashemite University according to the gender variable (male/female)?**

To find out whether there are differences in the average means of the cognitive outcome in athletics among field training students at the Hashemite University according to gender (male/female) or not, means and standard deviations of the scale as a whole, were calculated according to this variable, as shown in Table (3):

Table (3) means and standard deviations of the cognitive outcome in athletics among students of field training at the Hashemite University according to gender

Domain	Category	N	Mean	SD
Historical	**Male**	56	4.59	2.16
	Female	34	4.44	1.97
	Total	90	4.53	2.08
Law	**Male**	56	6.48	2.54
	Female	34	6.29	2.84
	Total	90	6.41	2.64
Skill Performance	**Male**	56	5.02	2.56
	Female	34	4.53	1.85
	Total	90	4.83	2.32
Training	**Male**	56	4.32	1.80
	Female	34	3.47	1.44
	Total	90	4.00	1.72
Total	**Male**	56	20.41	6.16
	Female	34	18.74	5.59
	Total	90	19.78	5.98

As can be seen from table (3), there are apparent gender-based differences in the means of cognitive outcome of athletics among students of field training at Hashemite University. To verify the significance of these apparent differences, a multivariate analysis was conducted, as shown in table (4):

Table (4). Multiple Variance Analysis (MANOVA) of cognitive outcomes in athletics among Hashemite University field training students according to gender.

Source of variance	Dependent variable	Sum of Squares	DF	Mean of squares	F	Sig.
Gender Hotelling's Trace Value: 0.142 Sig. 0.481	**Historical Domain**	0.46	1	0.46	0.11	0.75
	Law Domain	0.75	1	0.75	0.11	0.75
	Skill performance	5.05	1	5.05	0.94	0.34
	Training Domain	15.32	1	15.32	5.46	0.02*
	Total	59.38	1	59.38	1.67	0.20
Error	**Historical Domain**	383.94	88	4.36		
	Law Domain	621.04	88	7.06		
	Skill performance	473.45	88	5.38		
	Training Domain	246.69	88	2.80		
	Total	3122.17	88	35.48		
Total	**Historical Domain**	384.40	89			
	Law Domain	621.79	89			
	Skill performance	478.50	89			
	Training Domain	262.00	89			
	Total	3181.56	89			

*Significant at ($\alpha \leq 0.05$)

The findings of Table (4) indicate that there are statistically significant differences at the level ($\alpha \leq 0.05$) in the training domain according to the gender variable, based on the calculated p-value of (5.46), and at the level of significance (0.02), in favor of males. The findings also indicate that there are no statistically significant differences at the level ($\alpha \leq 0.05$) in the cognitive outcome as a whole in addition to the historical domain, the law domain, and the skill performance domain according to the gender variable, based on the calculated p-values (1.67, 0.11, 0.11, and 0.94), respectively, with a significance level greater than (0.20, 0.75, 0.75, 0.34).

Despite the clear weakness of the cognitive outcome in athletics among field training students generally, male students had an advantage regarding the training domain. We think that this advantage may be attributed to the fact that some male students train in football clubs, which has led to their possession of a portion of the cognitive outcome in training being better than that of female students.

The researchers believe that this finding is logical because both males and females have cognitive weaknesses, so these domains, in addition to the total domain, did not allow the emergence of differences that

can be attributed to gender. There were no significant gender differences in the historical, legal, or skill performance domains.

- **The Third Question: Are there statistically significant differences at the significance level ($\alpha \leq 0.05$), at the cognitive outcome of athletics among students of field training at the Hashemite University according to the cumulative average variable?**

To find out whether there are differences in the arithmetic average patterns of the cognitive outcome in athletics among field training students at the Hashemite University according to the cumulative average variable or not, means and standard deviations of the scale as a whole were calculated according to this variable, as shown in Table (5) below:

Table (5). Means and standard deviations of the cognitive outcome in athletics according to the cumulative average variable

Domain	Category	N	Mean	SD
Historical	Less than 2.5	27	4.74	2.01
	2.5 – 2.99	54	4.63	2.11
	3.3.49	9	3.33	1.87
	Total	90	4.53	2.08
Law (Legal)	Less than 2.5	27	6.52	2.83
	2.5 – 2.99	54	6.52	2.67
	3.3.49	9	5.44	1.81
	Total	90	6.41	2.64
Skill Performance	Less than 2.5	27	4.33	2.22
	2.5 – 2.99	54	5.20	2.30
	3.3.49	9	4.11	2.52
	Total	90	4.83	2.32
Training	Less than 2.5	27	3.81	2.06
	2.5 – 2.99	54	4.06	1.56
	3.3.49	9	4.22	1.64
	Total	90	4.00	1.72
Total	Less than 2.5	27	19.41	6.77
	2.5 – 2.99	54	20.41	5.93
	3.3.49	9	17.11	2.26
	Total	90	19.78	5.98

Table (5) shows apparently that there are differences between the means of the cognitive outcome in athletics among the field training students at the Hashemite University according to the cumulative average variable.

Table (6). Results of the Multiple Variance Analysis (MANOVA) of the cognitive outcome in athletics among field training students at the Hashemite University according to the cumulative average variable

Source of variance	Dependent variable	Sum of Squares	DF	Mean of squares	F	Sig.
Cumulative average Wilks' Lambda Value: 0.911 Sig. 0.437	Historical Domain	14.62	2	7.31	1.72	0.19
	Law Domain	9.34	2	4.67	0.66	0.52
	Skill performance	18.85	2	9.43	1.78	0.17
	Training Domain	1.54	2	0.77	0.26	0.77
	Total	89.11	2	44.56	1.25	0.29
Error	Historical Domain	369.78	87	4.25		
	Law Domain	612.44	87	7.04		
	Skill performance	459.65	87	5.28		
	Training Domain	260.46	87	2.99		
	Total	3092.44	87	35.55		
Total	Historical Domain	384.40	89			
	Law Domain	621.79	89			
	Skill performance	478.50	89			
	Training Domain	262.00	89			
	Total	3181.56	89			

The results of Table (6) show that there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the cognitive outcome as a whole in addition to all domains: **historical domain, legal, skill performance domain, and training domain** according to the cumulative average variable, based on the

calculated p-values which amounted to (1.72, 0.66, 1.78, 0.26, 1.25), respectively, and with a significance level greater than 0.05 (0.19, 0.52, 0.17, 0.77, 0.29).

The researchers attribute this to the fact that the cumulative average variable has no effective and influential relationship with increasing the cognitive outcome or not, and the reason for this may be that the athletics lectures are not sufficient to increase the cognitive outcome of the field training students.

Conclusions:

The field training students at Hashemite University exhibit generally low cognitive outcomes in athletics. Notably, the historical domain yielded the highest cognitive outcomes for these students, whereas the skill performance domain demonstrated the lowest cognitive outcomes. Furthermore, male athletes consistently outperformed their female counterparts within the training domain. However, it is important to note that there are no statistically significant differences in cognitive outcomes in athletics among field training students when considering the cumulative average variable.

Recommendation:

It is essential to enhance interest in the theoretical aspects of athletics, including the management and training components. Additionally, conducting similar studies across other practical disciplines is recommended to assess the cognitive outcomes associated with those sports. Furthermore, it is imperative to engage athletics educators with the findings of this study to address the prevalent issues concerning the overall weakness in the cognitive outcomes of students.

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Appendix (1)

List of Arbitrators

No.	Name	Rank	University
1	Walid Al-Rahahleh	Prof	Univ. of Jordan
2	Muhammad Abu al-Tayyib	Prof	Univ. of Jordan
3	Walid Al-Hamouri	Associate Prof.	Univ. of Jordan
4	Nizar Al-Waisi	Associate Prof.	Yarmouk Univ.
5	Muayad Al-Tarawneh	Assistant Prof.	Mutah Univ.
6	Karam Abu Aqoula	Assistant Prof.	Al al-Bayt Univ.

Appendix (2)

Dear Student.....

Greetings,

The researchers are conducting a study about (the cognitive outcome in athletics for students of field training at the Hashemite University), and to achieve the objectives of the study, a questionnaire consisting of four domains and fifty paragraphs was prepared.

You are, kindly, requested to answer the paragraphs of the questionnaire, bearing in mind any information will be only for scientific research purposes, and it will be treated confidentially.

Thank you for your kind cooperation.

The researchers

Personal Information

Gender (Sex): a – Male b- Female

Cumulative Average: ……

First: Historical Domain

No	Paragraph
1	Athletics began with the first ancient Olympics in: A-976 B.C. B-776 B.C. C.-476 B.C. D-276 B.C.
2	The first Modern Olympic Games in which athletics activities were included in: A - 1894 B - 1896 C - 1898 D - 1900
3	The word athletics is derived from a Greek word meaning: A- race B- wrestler C- highest D- strongest
4	The marathon is named after: Name of a battle between Greece and the Persians. Name of a Greek fighter Name of a mountain in Greece. None of the above.
5	The player Muhammad Jamil Abu Al-Tayeb won the first Gold Medal for Jordan in the Javelin Throwing in the second Arab sports tournament in: A - 1954 B - 1955 C - 1956 D - 1957
6	Jordan won its first Olympic medal in athletics in: A - 1976 B – 2000 C - 2016 D - None of the above
7	The World Athletics Championships are held every: A- yearly B- every two years C- every 4 years D- None of the above
8	The number of countries that participated in athletics activities in the first modern Olympics: A – 11 B - 14 C - 15 D - 17
9	The Jordanian Athletics Federation was established in: A - 1961 B - 1916 C - 1921 D - 1912
10	The International Association of Athletics Federations was established in: A - 1900 B - 1904 C - 1912 D - 1920

Second: Legal (Laws) Domain

No	Paragraph
1	The length of the legal outdoor track in athletics is: A - 100 meter B - 200 meter C - 400 meter D - 800 meter
2	The record in the 100m competition does not depend if the wind speed is in the direction of the player: A- 1 m/s B- 1.5 m/s C- 2 m/s D- None of the previous
3	Discuss sector angle: A - 43.92 B - 43.29 C - 34.92 D - 34.29
4	Number of stick deliveries in a 100m relay: A - 3 B - 4 C - 5 D - 6
5	If the number of long jumpers is 8, the number of attempts for each player is: A-3 attempts B-4 attempts C-6 attempts D-8 attempts
6	The distance between the takeoff board and the end of the landing area in the long jump shall not be less than: A - 9 meter B - 10 meter C - 11 meter D - 13 meter
7	In a 100m relay competition, the length of the hand-over area is: A - 15 meter B-20 meter C-25-meter D 30 meter
8	Relay stick weight: A-50gm B-100gm C-500gm D-1000g
9	The diameter of Discus circle: A-2.150 meter B-2.135 meter C-2,250 meter D-2,500 meter
10	The lift plate in the men's triple jump is off the edge of the jump hole: A-9 Meter B-11 Meter C-13 Meter D-15 Meter
11	The weight of Men's spear: A-600g B-700g C-800g D-1000g
12	The weight of Women's shot put: A-3 kg B-4 kg C-6,260 kg D-7,260 kg
13	A player is disqualified (dismissed) if he makes the wrong start for: A- Once B- Twice C- Three times D- None of the previous
14	The javelin's arc line is part of a circle of…… diameter: A-14 Meter B-16 Meter C-18 Meter D-20 Meter
15	The number of laps a player running ten thousand meters makes in the legal track: A-20 turns B-25 turns C-30 turns D-40 turns

Third: Domain of Skill of Performance

No	Paragraph
1	The kinetic sequence of the high jump skill consists of: A - approach - fly - rise - landing b - rise - approach - fly - landing C - approach - take up - fly - landing D- None of the above.
2	The dorsal method of the high jump is called: A - Scissors. B - Saddlebags. C-Fosbury. D - none of the above
3	The walking step consists of a stage: A- Single pivot and free pivot stage. b- Double pivot and triple pivot stage. c- Single pivot and triple pivot stage. D- Single pivot and double pivot stage.
4	The kinematic sequence of crawl propulsion consists of: A - crawling - preparing - throwing - covering. b - standby - crawl - throw - cover. C - cover - crawl - standby - throw. D - crawling - covering - preparing - throwing
5	In a race walk the first touchdown is on: A - The sole of the foot. b- Metatarsal C - the outer edge of the foot. D - Heel of the foot.
6	The step in the triple jump is for the player to: A - Ascending and descending on the same foot. B - Going up one foot and landing on the other foot. C - Going up and down on both feet. D- None of the above.
7	Each running step contains:

	A- Single pivot and double pivot stage. B - double pivot and fly. C- Single pivot and free pivot. D - Individual pivot and flight
8	The kinematic sequence of throwing the disc consists of: A - Swings - rotation - throw - cover. b - Rotation - weights - throwing - covering. C - Covering - rotation - weights - throwing. D - Swings - throw - turn - cover.
9	In the short-footprint sprint that leaves the starting cube first: A - The front cube feet. B-Foot cube back. C - Feet together. D- None of the above.
10	The triple jump consists of the following stages: A - Approaching - step - hopscotch - jump. B - Approach - jump - hopscotch - jump. C - Approach - hops - jump - step. D - Approach - hops - step - jump.
11	When rising in the long jump, the player's center of gravity is: A - in front of the feet of the ascent B - Above the feet of elevation C - Behind the feet of the rise D- None of the above.
12	When the pelvis is pushed forward during the flight phase of the long jump, this method is called: A- sail B- hang on C- walk in the air D- squat
13	The disc is carried in the hand on: A - All phalanges of the fingers. b- All phalanges of the fingers except for the thumb and forefinger. C - All phalanges of the fingers except the thumb. D- None of the above.
14	The right-handed player is throwing the disc in the air A - Clockwise. B - Counterclockwise. C- None of the previous

Fourth: Domain of Training

No	Paragraph
1	Great strength training needs: A - Low intensity and many repetitions. b- Medium intensity and fast repetitions. C - High intensity and many repetitions. D - High intensity and few repetitions.
2	Strength endurance training needs: A - Low intensity and many repetitions. b- Medium intensity and fast repetitions. C - High intensity and many repetitions. D - High intensity and few repetitions.
3	Which of the following statements is not about flexibility: A - The ability of the joint to perform movements in a wide range of motion. B - Flexibility decreases with age. C - Men are more flexible than women with age. D - Flexibility can be improved by performing appropriate stretching exercises.
4	In the period of "preparation" of the athlete: A - The volume of training increases gradually. B - The volume of training gradually decreases. C - The intensity increases and the volume of training decreases. D- None of the above.
5	During the "competitions" of the athletics player: A - The volume of training increases gradually. B - The amount of training and intensity gradually decreases. C - The intensity increases and the volume of training decreases. D- None of the above.
6	Each training unit must contain the following sequence: A- Fitness unit - warm-up - skill unit - cool-down. B - Warm-up - skill unit - fitness unit - cool down. C - Warm-up - fitness unit - skill unit - cool down. D - Cool-down - Warm-up - Skill Unit - Fitness Unit.

7	Continuous training method is used to develop: A - General endurance and hospitalization. b- General endurance and strength endurance. c- Endurance and recovery. D - none of the above
8	The athletics coach performs high-intensity interval training with the aim of developing: A - General endurance. b- Endurance race. C - Great power. D- None of the above.
9	Flexion and extension of the arms for 30 seconds while prone measures: A - The strength of the arms. B - The elastic force of the arms. C - The absolute strength of the arms. D - The strength of the arms.
10	A running test (30m) of stability measures: A - The speed of the reaction. b- Acceleration. c- Maximum speed. D-bear your speed.
11	In the transitional period for the athletics player A- Increases in size and intensity. B - The size increases, and the intensity decreases C - size decreases and intensity decreases D - the size decreases and the intensity increases

الحصيلة المعرفية في ألعاب القوى لدى طلبة التدريب الميداني في الجامعة الهاشمية

الملخص :

هدفت هذه الدراسة الى تحديد الحصيلة المعرفية في العاب القوى لدى طلبة التدريب الميداني في الجامعة الهاشمية، بالإضافة إلى تحديد الفروقات في الحصيلة المعرفية وفقاً لمتغيرين (الجنس والمعدل التراكمي). استخدم الباحثون المنهج الوصفي المسحي على عينة الدراسة التي تتألف من طلبة التدريب الميداني المتخصصين في إدارة وتدريب الرياضة في كلية التربية البدنية وعلوم الرياضة في الجامعة الهاشمية، والبالغ عددهم (90) طالباً وطالبة، يمثلون 80% من إجمالي المجتمع المستهدف للدراسة. قام الباحثون بإعداد مقياس اختياري لقياس الحصيلة المعرفية وفقاً لمجالات تاريخية وقانونية ومهارية وتدريبية. أظهرت نتائج الدراسة ضعفاً واضحاً بشكل عام بين الطلاب في الحصيلة المعرفية في ألعاب القوى في جميع مجالات الدراسة، (م = 19.78) وأهمية نسبية قدرها (39.56%). كما كشفت نتائج الدراسة عدم وجود فروق ذات دلالة إحصائية بين الجنسين في المكونات التاريخية والقانونية والمهارية للدراسة، بينما تم اكتشاف وجود اختلافات ذات دلالة إحصائية مرتبطة بالجنس في مكون التدريب، لصالح الذكور. وفقاً لنتائج الدراسة، لم تكن هناك فروق ذات دلالة إحصائية عبر جميع مجالات الدراسة لمتغير المعدل التراكمي. لتفادي الضعف الظاهر في الحصيلة المعرفية لطلاب التدريب الميداني، أوصى الباحثون بالاهتمام بالجوانب النظرية لتدريس ألعاب القوى، وإدارة وتدريب ألعاب القوى. كما اقترح الباحثون إجراء دراسات مماثلة في رياضات أخرى لفهم الحصيلة المعرفية للطلاب في تلك الرياضات.

الكلمات المفتاحية: الحصيلة المعرفية، ألعاب القوى، الجامعة الهاشمية.