Performance Evaluation in Posture Positions (Standing - Sitting- walking) For Elementary School pupils

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Introduction and research problem:

Scientific research has become one of the most important necessities for the development of our modern society to reach the highest levels in all aspects of life by recognizing the various capabilities and energies that God has endowed man in an attempt to achieve the greatest possible benefit from scientific theories and to adapt them to serve and develop society. (3:5)

And good posture, whether static or moving, requires moderate muscle tension (tone), and this means the activity of anti-gravitational muscle groups to resist downward tension and maintain the posture without excessive stress or exaggeration in the amount of muscle tension, on the one hand, and on the other hand, a strong balance of the opposite muscles is required. For each other, the outcome of the forces affecting the system as a whole is equal to zero, and thus the stability of the situation can be ensured. (10: 117)

The habits of strength, like other habits, are formed by repetition in the early years of life, and the individual's knowledge of correct regular habits and awareness of the importance of strength and how to maintain its integrity will have the greatest impact on improving these habits and his keenness to practice them, which will positively reflect on his.(1:3)

Muhammad Subhi Hassanein (2005 CE) and **Eileen Wadih Faraj** (2000 CE) agree that wrong postural habits are among the most prominent factors in the spread of postural deviations among school-age pupils, and hence the development of constellation awareness among these students is an urgent necessity to address this growing phenomenon. (10: 147), (2: 18)

The evaluation process depends on a comparison between the reality of an individual's performance and

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what the performance should be, and it uses all possible means to collect the required data from tests or content analysis, and the use of one or more of these methods depends on the type of information required as well as the type of element to be evaluated. (7: 17)

And evaluation by its various means is the main pillar to identify the extent of improvement or progress in the level of performance, so that positive points can be revealed to support or be keen on improving them, as well as negative points to determine their causes and determine methods and methods of treatment. (7: 354)

The observation method is considered one of the most used methods in evaluating the different postural conditions of schoolchildren. **Mahmoud Abdel-Halim Abdel Karim** (2006 AD) indicated that if a teacher wants to be effective in the teaching process, he must be sensitive to the skill of observation, and he has the desire to practice it continuously. And to realize that the path of improvement begins with the ability to observe objectively in order to provide a basis for collecting the appropriate information that the teacher needs related to the state of motor performance in the lesson environment, and this means that he does not make a judgment before he proves it with many observations and that the teacher accurately sees all parts of the movement until He is characterized as a "skillful observer." (11: 334)

The problem of the research lies in the fact that the researcher noticed the emergence of errors in the performance of the various postural conditions of schoolchildren at the primary stage, and the researcher may attribute this to the students ’lack of awareness of some of the details of those situations, and the scarcity of objective, standardized means of evaluating performance, which required the researcher to search and investigate finding solutions To address this deficiency, which called for the necessity of a codified tool stemming from exemplary steps and not just an endeavor, the attempt may lose some of its aspects, which necessitated the use of technical points in evaluating the various postural situations, which helps the physical education teacher when teaching and improving

the orthopedic situation to avoid errors as soon as they arise and not be rooted. And providing them with standardized means that help them easily communicate information to students.

From this standpoint, the study of legal status techniques contributes to evaluating and improving their performance by accessing specific information about performance, and this information is digital forms, which raises its objectivity and validity in a way that ensures its stability if it is repeated in the performance evaluation, and hence the design of forms Performance evaluation is among the objective evaluation methods that can be used in awareness of posture situations. This prompted the researcher to construct a form to evaluate performance in posture conditions for primary school students.

The Aim of the Research:

The research aims to build a form for evaluating performance in postural situations (correct standing- proper sitting- correct walking) for elementary school pupils in light of identifying body parts, and technical points for body parts participating in the performance of posture (under discussion).

The Research Questions:

The researcher's opinion has set the following questions , which it is assumed that the research will reach an answer to in order to develop the evaluation forms for the purpose of the research:

1- What parts of the body participate in the performance of postural postures (correct standing- proper sitting- correct walking)?

2- What parts of the body are most influential in the performance of postural postures (correct standing- proper sitting- correct walking) ?

3- What is the degree corresponding to the evaluation of the parts of the body participating in the performance of postural postures (correct standing- proper sitting- correct walking)?

4- What are the technical points of the body parts involved in the performance of postural postures (correct standing- proper sitting- correct walking)?

5- What are the most influential technical points for body parts participating in the performance of postural postures (correct standing- proper sitting- correct walking)?

6- What is the degree corresponding to the evaluation of the technical points of the parts of the body participating in the performance of postural postures (correct standing- proper sitting- correct walking)?

The scientific terms mentioned in the research

Evaluate– Evaluation:

Evaluation is the process of issuing a judgment on the value of objects, people, or subjects, and in this sense it requires the use of norms, levels, or criteria to assess this value, and the evaluation includes the meaning of improvement, modification, or development that depends on these judgments. (9: 37)

Observation :

It is the ability to define the characteristics of a subject of study and to focus attention on the critical factors associated with the topic (6: 208)

Reference studies:

1- The study "**Laila Gamal Mhanni Youssef**" (2010) (8) The study aimed to evaluate the technical performance of the disc-throwing competition using qualitative analysis. The researcher used the descriptive approach (case study). They were deliberately chosen by the method of (19) male and (10) female players for the pilot study, and the most important results showed the validity and validity of the important technical performance evaluation form and considered it a good scientific method for evaluating the technical performance of the disc throwing competition.

2- The study of "**Mona Awad Hussain**" (2006 AD) (12). The study aimed to develop a form to evaluate the technical performance of the high jump race "by the saddle method" using the Hay and Reed "qualitative analysis" model. The researcher used the descriptive and experimental approach, and the study sample consisted of female students. The second at the Faculty of Physical Education, Assiut University, and they were deliberately chosen by the method of (20) students, and the most important results showed the validity of the designed form and considered it a good scientific method for evaluating the technical performance of the high jump (the saddle method).

3- The study of "**Khaled Ali Ahmed**" (2005 AD) (4). The study aimed to evaluate the technical performance accompanying the basic skills (passing- reception- correction).

The researcher used the descriptive approach, and the study sample consisted of young people under 16 years old in Assiut Governorate, and they were chosen by the intentional method. For (20) players, the most important results showed the validity and validity of the technical performance evaluation form as a practical method for technical analysis for the purpose of evaluation.

4- The study of "**Tariq Farouk Abdul Samad**" (2005 AD) (5). The study aimed to quantitatively and analyze technical performance errors by using two models for analysis and suggesting some exercises for the most common skills in the Haiyan Kata group (**Heian Shodan- Heian Nidan- Heian Yundan- Heian Godan**) in sport Karate, the researcher used the descriptive approach, and the study sample consisted of players of the second degree in karate and they were deliberately chosen by (80) players, and the most important results showed that the analysis of skills in the long memory range gives the possibility to enter into details that may be difficult to correct when choosing technical points to 5 or 6 technical points, and the scores of performance evaluation vary from one skill to another according to the percentage of acceptance and rejection of errors.

Research plan and procedures:

The Research curriculum

The researcher used the descriptive method in the "survey studies" method, due to its relevance to the nature of the research.

Community and Sample Research:

The research community included primary school pupils, and the research sample was deliberately chosen from among the third grade pupils of the Aswan Educational Administration by (30) students in Al-Orouba Primary School.

Data collection methods:

Form for evaluating performance in orthopedic positions (correct posture - proper sitting - correct walking) prepared by the researcher.

Reference survey.

The researcher reviewed references and specialized studies in the field of strength and the field of tests and measurements related to the research topic.

- A camera for visualizing a "video", and a computer for displaying the video.

To build a form for evaluating performance in postural positions (correct standing - proper sitting - correct walking), the researcher followed the following steps:

The first step:

an expert opinion survey form to determine the relative importance of the main body parts involved in the performance of postural postures (correct standing- proper sitting- correct walking).

The second step:

an expert opinion survey form to determine the body parts involved in the performance of postural postures (correct standing- proper sitting- correct walking).

The third step:

an expert opinion survey form to determine the relative importance of the sub-body parts involved in the performance of postural postures (correct standing- proper sitting- correct walking) and the degree of their impact

The fourth step:

an expert opinion survey form to determine the technical points of the subsections of the body involved in the performance of orthopedic postures (correct standing- proper sitting- correct walking).

Fifth step:

an expert opinion survey form to determine the relative importance of the technical points of the body parts involved in the performance of orthopedic postures (correct standing - proper sitting - correct walking) and the degree of their impact.

The first step: the relative importance of the main body parts involved in the performance of postural positions (correct standing- proper sitting- correct walking)

A survey form was designed and presented to the experts in the field of sports health sciences to determine the relative importance of the main body parts involved in the performance of postural postures (correct standing- proper sitting- correct walking), by distributing (10) degrees on the main body parts according to their relative importance. Attachment (2), and Table (1) illustrate that

Table (1)
The relative importance and degrees of the main body parts involved in the performance of postural positions (correct standing- proper sitting- correct walking) according to expert opinions (N = 10)

Marks	Percentages	Major body parts	postural positions
٦.٥	%٦٥	Upper body	posture good standing
٣.٥	%٣٥	The lower body	
١٠	%١٠٠	Total	
٧	%٧٠	Upper body	posture good Sitting
٣	%٣٠	The lower body	
١٠	%١٠٠	Total	
٦	%٦٠	Upper body	posture good walking
٤	%٤٠	The lower body	
١٠	%١٠٠	Total	

Table No. (1) shows the relative importance and degrees of the main body parts involved in the performance of orthopedic positions (correct standing - proper sitting - correct walking).

The second step: Determine the sub-parts of the body involved in the performance of postural postures (correct standing- proper sitting- correct walking).

The content analysis was used for a number of scientific references in stature, to determine the sub-parts of the body involved in the performance of postural postures (correct posture - proper sitting - correct walking), and these data were placed in an initial form attached (3), and the researcher presented this form to the experts in The field of sports health sciences, in order to determine the most important sub-parts of the body participating in the performance of postural postures (correct standing - proper sitting - correct walking), who expressed their opinions by adding, modifying or deleting what they deem appropriate, and the formulation of the sub-body parts that obtained the percentage (70%) or more.

Table (2)

The relative importance of the appropriate degree of formulation of the sub-body parts involved in the performance of standing the correct, according to the opinions of the experts. (N = 10)

Technical point condition	Percentages	Estimated score	Subsidiary body parts	Major body parts
✓	%١٠٠	٥٠	Head and neck	Upper part
✓	%٩٦	٤٨	shoulders	
✓	%٨٨	٤٤	chest	
✓	%٩٦	٤٨	arms	
✓	%١٠٠	٥٠	back	
✓	%٨٨	٤٤	Belly	
✓	%١٠٠	٥٠	Pelvis	Lower part
✓	%١٠٠	٥٠	knees	
✓	%٨٠	٤٠	The feet	

Table No. (2) shows the relative importance of the appropriate formulation of the sub-body parts degree that involved in the performance in the correct standing position according to the opinions of the experts, and the formulation of the subsections of the body that obtained a rate of (70%) or more

Table (3)

The relative importance degree of appropriate formulation of the sub-body parts involved in the performance in a proper sitting position according to the opinions by the experts. (N = 10)

Technical point condition	percentage	The estimate Score	Subsidiary body parts	Major body parts
✓	%١٠٠	٥٠	Head and neck	Upper body
✓	%٩٦	٤٨	shoulders	
✓	%٨٠	٤٠	chest	
✓	%٩٦	٤٨	arms	
✓	%١٠٠	٥٠	back	
✓	%٨٨	٤٤	belly	
✓	%٩٦	٤٨	Pelvis	Lower body
✓	%١٠٠	٥٠	legs	

Table No. (3) shows the relative importance of the appropriate degree formulation of the sub-body parts involved in the performance of the proper sitting position according to the opinions of the experts, and the formulation of the subsets of the body that obtained a percentage (70%) or more was taken into account.

Table (4)

The relative importance of the appropriate degree of the sub-body parts formulation that involved in the correct walking performance according to the opinions of the experts. (N = 10)

Technical point condition	percentage	The estimate score	Subsidiary body parts	The major body parts
✓	%٩٦	٤٨	Head and neck	Upper body
✓	%٩٦	٤٨	Shoulders	
✓	%٨٤	٤٢	Chest	
✓	%٩٢	٤٦	Arms	
✓	%١٠٠	٥٠	Back	
✓	%٨٠	٤٠	Belly	
✓	%٩٦	٤٨	Pelvis	Lower body
✓	%١٠٠	٥٠	legs	

Table (4) show the relative importance of the appropriate formulation degree of the subsections of the body involved in the correct walking performance According to the opinions of the experts, the formulation of the subsections of the body that obtained a percentage (70%) or more were taken into consideration.

The third step: determining influence degree of the subsections of the body:

After enumerating and formulating the subsections of the body, a questionnaire was designed in order to determine the importance of each of the subsections of the body attached (٤) , And that is through the opinions of some experts in the field of sports health sciences from the faculty members of the Faculties of Physical Education attachment (1), To ensure the authenticity of the content, table (5), (6), (7) clarify that.

Table (5)

Standard error of acceptance and rejection ratio for persistent and influencing body parts Participate in performing the correct posture. (N = 10)

Technical point arrangement	Technical point condition	Significance limit ٠.٠٥	Standard error	The percentage of disapproval	Approval percentage	The estimate score	Major and minor body parts involved in correct posture	s
1-Upper part								
٢	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	Head and neck	١
٣	✓	٢٩.٣٦	١٤.٩٨	%٣٤	%٦٦	٣٣	shoulders	٢
٥	✓	٣٠.٩٧	١٥.٧٩٩	%٥٢	%٤٨	٢٤	chest	٣
٦	✓	٣٠.٩	١٥.٧٦	%٥٤	%٤٦	٢٣	arms	٤
١	✓	١٢.١٥	٦.٢	%٤	%٩٦	٤٨	back	٥
٤	✓	٣٠.٧٧	١٥.٧	%٤٤	%٥٦	٢٨	belly	٦
2- lower part								
٢	✓	٢١.٥١	١٠.٩٧	%١٤	%٨٦	٤٣	Pelvis	١
٣	✓	٢٢.١٣	١١.٩٢	%١٥	%٨٥	٤٠	knees	2
١	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	feet	3

Table No. (5) shows the standard error of the acceptance and rejection ratio for the continuous and effective body parts involved in the correct standing posture.

Table (6)

Standard error of acceptance and rejection ratio for persistent and influencing body parts Participate in performing a proper sitting position. (N = 10)

Technical point arrangement	Technical point condition	Significance limit ٠.٠٥	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Major and minor body parts involved in proper sitting posture	s
1- Upper body part								
٢	✓	١٦.٩	٨.٦	%٨	%٩٢	٤٦	Head and neck	١
٤	✓	٢٨.٩١	١٤.٧٥	%٣٢	%٦٨	٣٤	shoulders	٢
٥	✓	٣٠.٩٩	١٥.٨١	%٥٠	%٥٠	٢٥	chest	٣
٦	✓	٣٠.٩٧	١٥.٨	%٥٢	%٤٨	٢٤	arms	٤
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	back	٥
٣	✓	٢٨.٤٠	١٤.٤٩	%٣٠	%٧٠	٣٥	belly	٦
2- Lower body part								
٢	✓	٢٢.٧٢	١١.٥٩	%١٦	%٨٤	٤٢	pelvis	١
١	✓	١٢.١٥	٦.٢	%٤	%٩٦	٤٨	legs	٢

Table No. (6) showes the standard error of the acceptance and rejection rate of the influencing and persistent body parts involved in the performance of the proper sitting position.

Table (7)
Standard error of acceptance and rejection ratio for persistent and effective body parts Participate in performing the correct walking. (N = 10)

Technical point arrangement	Technical point condition	Significance limit ٠.٠٥	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Major and minor body parts involved in proper walking performance	s
1- Upper body part								
٢	✓	١٦.٩	٨.٦	%٨	%٩٢	٤٦	Head and neck	١
٤	✓	٢٨.٩١	١٤.٧٥	%٣٢	%٦٨	٣٤	shoulders	٢
٦	✓	٣٠.٩٧	١٥.٨	%٤٨	%٥٢	٢٦	chest	٣
٥	✓	٣٠.٩٧	١٥.٨	%٤٦	%٥٤	٢٧	arms	٤
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	back	٥
٣	✓	٢٧.١٩	١٣.٨٧	%٢٦	%٧٤	٣٧	belly	٦
2- Lower body part								
٢	✓	٢٥.٧	١٣.١	%٢٢	%٧٨	٣٩	pelvis	١
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	legs	٢

Table No. (7) shows the standard error of the acceptance and rejection ratio for the continuous and influencing body parts involved in the correct performance of walking.

The degrees of body parts involved in the performance of postural positions (correct standing - proper sitting - correct Gait) were extracted by determining the relative importance of the parts of the body participating in the performance of postural postures (correct standing - proper sitting - correct walking) Then calculate the degree of its impact, so that the vocabulary of the form can be estimated and judged. Table (8), (9) and (10) illustrate this

Table (8)
The relative importance and degrees of influence in the body parts involved in the correct posture performance. (N=10)

The corresponding degree to the point	percentage	Weighted arithmetic mean	Total weights selected only	Estimate score	Major and minor body parts involved in correct posture	s
1- Upper body part						
١.٥	%٢٢.٦	٣.٧٥	١٢	٤٥	Head and neck	١
٠.٩	%١٤.٢	٢.٣٦	١٤	٣٣	shoulders	٢
٠.٦	%٩.٧	١.٦	١٥	٢٤	chest	٣
٠.٦	%٩.٢	١.٥٣	١٥	٢٣	arms	٤
٢.١	%٣٢.٢	٥.٣٣	٩	٤٨	back	٥
٠.٨	%١٢.١	٢	١٤	٢٨	belly	٦
٦.٥	%١٠٠	١٦.٥٧	Total			
2- Lower body part						
١.١	%٣١.٧	٣.٠٧	١٤	٤٣	pelvis	١
١	%٢٩.٥	٢.٨٦	١٤	٤٠	knees	٢
١.٤	%٣٨.٨	٣.٧٥	١٢	٤٥	feet	٣
٣.٥	%١٠٠	٩.٦٨	Total			

Table No. (8) shows the relative importance and degrees of influence of the body parts involved in performing the correct posture .

Tables (9)

The relative importance and degrees of influence in the body parts involved in the proper sitting position. (N = 10)

The corresponding degree to the point	percentage	Weighted arithmetic mean	Total weights selected only	Estimated score	Major and minor body parts involved in proper sitting posture	s
1- Upper body part						
١.٥	%٢١.٩	٣.٨٣	١٢	٤٦	Head and neck	١
١	%١٣.٩	٢.٤٣	١٤	٣٤	shoulders	٢
٠.٧	%٩.٥٦	١.٦٧	١٥	٢٥	chest	٣
٠.٦	%٩.١٦	١.٦	١٥	٢٤	arms	٤
٢.٢	%٣١.١	٥.٤٤	٩	٤٩	back	٥
١	%١٤.٣	٢.٥	١٤	٣٥	belly	٦
٧	%١٠٠	١٧.٤٧	total			
2- Lower body part						
١.١	%٣٦	٣	١٤	٤٢	Pelvis	١
١.٩	%٦٤	٥.٣٣	٩	٤٨	legs	٢
٣	%١٠٠	٨.٣٣	Total			

Table No. (9) shows the relative importance and degrees of influence of body parts participating in the performance of a proper sitting position.

Table (10)

The relative importance and degrees of influence of the body parts involved in proper walking performance. (N = 10)

The corresponding degree to the point	percentage	Weighted arithmetic mean	Total weights selected only	Estimated score	Major and minor body parts involved in proper walking performance	م
1- Upper body part						
١.٤	%٢١.٤	٣.٨٣	١٢	٤٦	Head and neck	١
٠.٩	%١٣.٦	٢.٤٣	١٤	٣٤	Shoulders	٢
٠.٦	%٩.٧	١.٧٣	١٥	٢٦	Chest	٣
٠.٧	%١٠.١	١.٨	١٥	٢٧	Arms	٤
٢	%٣٠.٤	٥.٤٤	٩	٤٩	Back	٥
٠.٩	%١٤.٨	٢.٦٤	١٤	٣٧	Belly	٦
٦.٥	**%١٠٠**	**١٧.٨٧**	**Total**			
2- Lower body part						
١.١	%٣٢.٣	٢.٦	١٥	٣٩	Pelvis	١
٢.٤	%٦٧.٧	٥.٤٤	٩	٤٩	Legs	٢
٣.٥	**%١٠٠**	**٨.٠٤**	**Total**			

Table No. (10) shows the relative importance and degrees of influence of the parts body parts involved in correct walking performance

The fourth step: Determine the technical points of the subsections of the body that participate in the performance of the posture (correct standing - proper sitting - correct walking).

The content analysis was used for a number of scientific references in posture, to determine the technical points of the sub-body parts involved in the performance of postural postures (correct standing - proper sitting - correct walking), These data were placed in an initial form attached (5), and the researcher presented this form to experts in the field of sports health sciences, in order to determine the most important technical points for the subsections of the body participating in the performance of orthopedic postures (correct standing - proper sitting - correct walking). By expressing their opinions by adding, modifying or deleting what they deem appropriate from the formulation of the technical points, and the drafting of the technical points that obtained a percentage of (70%) or more was taken in consider

Table (11)

The relative importance of the degree of appropriateness of formulating the technical points of the sub-body parts involved in performing the correct posture according to the opinions of the experts. (N = 10)

The technical point condition	percentage	Estimated score	Technical points of sub-body parts involved in correct posture performance	s
First ,the upper body part				
1- Head and neck				
✓	%١٠٠	٥٠	The head is straight over the center of the torso, thighs and feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	١

Follow Table (11)

The relative importance of the degree of appropriateness of formulating the technical points of the sub-body parts involved in performing the correct posture according to the opinions of the experts. (N = 10)

The technical point condition	percentage	Estimated score	Technical points of sub-body parts involved in correct posture performance	s
✓	%١٠٠	٥٠	The ears are at one level parallel to the ground and the middle of the nipple are parallel to the center of the shoulder joint (the middle of the top of the head of the hummers), looking forward with no stiffness of the head.	٢
✓	%٩٦	٤٨	.The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	٣
2-	Shoulders			
✓	%١٠٠	٥٠	At one level and hang freely without any displacement forward, backward or upward, and parallel to the feet with the two panels flat.	١
✓	%٨٨	٤٤	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	٢
3-	Chest			
✓	%٩٦	٤٨	Lofted up and forward without exaggeration, and breathe freely.	١
4-	Arms			
✓	%١٠٠	٥٠	Two hanging freely, palms facing the body, thumb pointing forward.	١
5-	Back			
✓	%٩٦	٤٨	On its natural stretch without exaggerating flatness or curvature.	١
✓	%٩٦	٤٨	Hump back and concave cotton in the natural position.	٢
6-	Belly			
✓	%١٠٠	٥٠	Flat with your abdominal muscles pulled in and up without stiffness.	١

Follow Table (11)

The relative importance of the degree of appropriateness of formulating the technical points of the sub-body parts involved in performing the correct posture according to the opinions of the experts. (N = 10)

The technical point condition	percentage	Estimated score	Technical points of sub-body parts involved in correct posture performance	s
Secondly the lower body part				
1- Pelvis				
✓	%١٠٠	٥٠	Straight and not thrust forward, backward, or sideways.	١
✓	%٨٠	٤٠	The angle of the pelvis ranges from (55-60) degrees.	٢
2- Knees				
✓	%٨٠	٤٠	Keep the shoulders straight, with a slight drape to relieve pressure on the hips.	١
✓	%٧٢	٣٦	The thighs are at one level.	٢
3- Feet				
✓	%١٠٠	٥٠	They are parallel and the metatarsals are facing slightly forward and outward, with body weight evenly distributed over the feet and also on the heel, the outer border and the metatarsal for each foot separately.	١
✓	%٩٦	٤٨	The distance between them is as wide as the shoulders.	٢

Table No. (11) shows the relative importance of the appropriate degree of formulating the technical points for the sub-parts of the body participating in the performance of the correct standing position according to the opinions of the experts.

Table (12)

The relative importance of the degree of appropriateness of formulating the technical points of the parts of the body participating in the performance of a proper sitting position according to the opinions of the experts. (N = 10)

The technical point condition	percentage	Estimated Score	Technical points of body parts involved in performing a proper sitting posture	s
1-head and neck				
✓	%١٠٠	٥٠	The head is straight over the center of the torso, the thighs and the feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	١

Follow Table (12)
The relative importance of the degree of appropriateness of formulating the technical points of the parts of the body participating in the performance of a proper sitting position according to the opinions of the experts. (N = 10)

The technical point condition	percentage	Estimated Score	Technical points of body parts involved in performing a proper sitting posture	s
✓	%٩٦	٤٨	١ The two ears are at one level parallel to the ground and the middle of the nipple are parallel to the center of the shoulder joint (the middle of the top of the head of the humerus), looking forward with no stiffness of the head.	٢
✓	%٩٦	٤٨	The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	٣
3- Shoulder				
✓	%٩٢	٤٦	Relax and in one plane without any shifting forward, backward or upward, with the two plates being flat.	١
✓	%١٠٠	٥٠	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	٢
3-chest				
✓	%١٠٠	٥٠	Rise up and forward without exaggeration, and breathe freely.	١
4- Arms				
✓	%١٠٠	٥٠	Place the hands loosely on the thighs or one on the hand of the seat and the other on the thigh, or place them comfortably on the table, and the elbows are on either side of the body.	١
5- Back				
✓	%١٠٠	٥٠	On its natural extension without exaggeration in flatness or bending, and for the dorsal region to be adjacent to the back of the chair, taking into account not to spasm the muscles so that they perform their functions without fatigue or additional effort.	١
✓	%٩٦	٤٨	Hump back and concave cotton in the natural position.	٢
6- Belly				
✓	%٩٦	٤٨	Flat with your abdominal muscles pulled in and up without stiffness.	١
7- Pelvis				
✓	%١٠٠	٥٠	Sit at the hipbones and the length of your thighs (it is preferable to increase the area in contact with the seat).	١
8-legs				
✓	%١٠٠	٥٠	Push the buttocks back and they are adjacent to the back of the chair and the thighs in a comfortable position on the chair and the corners of the thighs, knees and heels are right (90 degrees). The weight of the body must be distributed between the buttocks and the thighs, not the top of the buttocks and the sacrum.	١
✓	%٩٦	٤٨	The knees should be at hip level, and a footrest can be used to achieve this, and the distance between the knees and feet is chest wide.	٢

✓	%٩٦	٤٨	The feet should be straight and completely flat on the floor.	٣

Table No. (12) shows the relative importance of the appropriate degree of formulating the technical points for the parts of the body participating in the performance of a proper sitting position according to the opinions of the experts.

Table (13)

The relative importance of the appropriate degree of formulation of technical points for the parts of the body participating in the correct performance of walking according to the opinions of the experts. (N = 10)

Thetechnical point condition	Percentage	Estimated score	Technical points for body parts involved in performing correct walking	s
١–head and neck				
✓	%٩٦	٤٨	The head is straight over the center of the torso, the thighs and the feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	١
✓	%٩٢	٤٦	The two ears are at one level parallel to the ground and the middle of the nipple are parallel to the center of the shoulder joint (the middle of the top of the head of the hummers), looking forward with no stiffness of the head.	٢
✓	%٩٦	٤٨	The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	٣
2 – shoulders				
✓	%٨٨	٤٤	Relaxed and in one plane without any shifting forward, backward or upward, with the two plates being flat..	١
✓	%١٠٠	٥٠	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	٢
3-chest				
✓	%١٠٠	٥٠	Lofted up and forward without exaggeration, and breathe freely.	١
4- Arms				
✓	%١٠٠	٥٠	Arms freely swinging at the shoulder joint, palms facing inward.	١
٥– back				
✓	%١٠٠	٥٠	On its natural stretch without exaggeration in flatness or bending, taking into account that the muscles do not spasm until they perform their functions without fatigue or extra effort.	١

✓	%٩٦	٤٨	Hump back and concave of the cotton in the normal position, and reduce the movement of the trunk to the lowest level in order to save effort.	٢

Follow Table (13)

The relative importance of the appropriate degree of formulation of technical points for the parts of the body participating in the correct performance of walking according to the opinions of the experts. (N = 10)

Thetechnical point condition	Percentage	Estimated score	Technical points for body parts involved in performing correct walking	s
6-Belly				
✓	%٩٢	٤٦	Flat with your abdominal muscles pulled in and up without stiffness.	١
7-Pelvis				
✓	%١٠٠	٥٠	Straight and not thrust forward, backward, or sideways.	١
5- Legs				
✓	%١٠٠	٥٠	Distribute the weight on the two legs evenly.	١
✓	%١٠٠	٥٠	The weight of the legs must be straight forward, while maintaining some grip in the knee joint, and the leg must be weighted from the thigh, and the landing is lightly on the heel and then the body weight moves to the outer borders of the foot and then to the front of the foot so that you feel pressure on the ground through the fingers , Then the big toe pushes the ground to end the support phase.	٢
✓	%١٠٠	٥٠	Two feet are pointing forward, the movement of the feet is parallel to each other and the horizontal distance between them is about two inches.	٣
✓	%٨٨	٤٤	The length of the walking stride is approximately equal to the length of the foot.	٤

Table No. (13) shows the relative importance of the appropriate degree of formulating the technical points for the parts of the body participating in the correct performance of walking according to the opinions of the experts, and the formulation of the technical points that obtained a percentage of (70%) or more was taken in consider.

The fifth step: determining the degree of influence of technical points:

After enumerating and formulating the technical points, a questionnaire was

designed with the aim of determining the importance of each of the technical points of each part of the body attached (6), through the opinions of some experts in the field of sports health sciences from the faculty members of the Faculties of Physical Education attached (1)), To ensure the authenticity of the content or content, and Table (14), (15), (16) clarifies that.

Table (14)

The standard error of acceptance and rejection ratio for effective and continuing technical points For body parts involved in the correct standing posture (N = 10)

Technical point arrangement	Technical point condition	The significance limit is 0.05	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Technical points for body parts involved in performing a correct standing posture	s
First the upper body part								
1- Head and neck								
١	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	The head is straight over the center of the torso, the thighs and the feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	١
٢	✓	٢٠.١	١٠.٣	%١٢	%٨٨	٤٤	The ears are at one level parallel to the ground and the middle of the nipple are parallel to the center of the shoulder joint (the middle of the top of the head of the humerus), looking forward with no stiffness of the head.	٢
١م	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	٣
٢–shoulders								
١	✓	٢١.٥	١١	%١٤	%٨٦	٤٣	In one plane and hang freely without any displacement forward, backward or upward, and parallel to the feet with the two panels flat.	١

Follow Table (14)
The standard error of acceptance and rejection ratio for effective and continuing technical points For body parts involved in the correct standing posture (N = 10)

Technical point arrangement	Technical point condition	The significance limit is 0.05	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Technical points for body parts involved in performing a correct standing posture	S
١م	✓	٢١.٥	١١	%١٤	%٨٦	٤٣	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	٢
٣-chest								
١	✓	٢٠.١	١٠.٣	%١٢	%٨٨	٤٤	Breathe loose and up and forward without exaggeration. Freely	١
٤-arms								
١	✓	٦.١٩	٣.١٦	-	%١٠٠	٥٠	Two hanging freely, palms facing the body, thumb pointing forward.	١
٥–back								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	On its natural stretch without exaggerating flatness or curvature.	١
٢	✓	١٤.٧	٧.٥	%٦	%٩٤	٤٧	Hump back and concave cotton in the natural position.	٢
٦-belly								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Flat with your abdominal muscles pulled in and up without stiffness.	١
Secondly the lower body part								
١-pelvis								
١	✓	١٢.١	٦.٢	%٤	%٩٦	٤٨	Straight and not thrust forward, backward, or sideways.	١
٢	✓	١٤.٧	٧.٥	%٦	%٩٤	٤٧	The angle of the pelvis ranges from (55-60) degrees.	٢
٢-knees								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Keep the shoulders straight, with a slight drape to relieve pressure on the hips.	١
٢	✓	١٤.٧	٧.٥	%٦	%٩٤	٤٧	The thighs are at one level.	٢
3-feet								
١	✓	٦.١٩	٣.١٦	-	%١٠٠	٥٠	They are parallel and the metatarsals are facing slightly forward and outward, with body weight evenly distributed over the feet and also on the heel, the outer border and the metatarsal for each foot separately.	١
٢	✓	١٦.٩	٨.٦	%٨	%٩٢	٤٦	The distance between them is	٢

							as wide as the shoulders.	

Table No. (14) shows the standard error of the acceptance and rejection ratio for the continuous and effective technical points of the parts of the body participating in the correct standing position.

Table (15)

The standard error of acceptance and rejection ratio for effective and continuing technical points For parts of the body involved in performing a proper sitting position. (N = 10)

Technical point arrangement	Technical point condition	The significance limit is 0.05	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Technical points of body parts involved in performing a proper sitting posture	S
١–head and neck								
٢	✓	٢٠.١	١٠.٣	%١٢	%٨٨	٤٤	The head is straight over the center of the torso, thighs and feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	١
١	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	The ears are in one plane parallel to the ground and the middle of the nipple are parallel to the middle of the shoulder joint (the middle of the top of the head of the humerus), looking forward with no stiffness of the head.	٢
م٢	✓	٢٠.١	١٠.٣	%١٢	%٨٨	٤٤	The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	٣
٢-shoulders								
٢	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	Relaxed and in one plane without any shifting forward, backward or upward, with the two plates being flat.	١
١	✓	١٦.٩	٨.٦	%٨	%٩٢	٤٦	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	٢
٣-chest								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Lofted up and forward without exaggeration, and breathe freely.	١
٤-arms								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Place the hands loosely on the thighs or one on the hand of the seat and the other on the thigh, or place them comfortably on the table, and the elbows are on either	١

							side of the body.	

Follow Table (15)
The standard error of acceptance and rejection ratio for effective and continuing technical points For parts of the body involved in performing a proper sitting position. (N = 10)

Technical point arrangement	Technical point condition	The significance limit is 0.05	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Technical points of body parts involved in performing a proper sitting posture	S
٥–back								
١	✓	٦.١٩	٣.١٦	-	%١٠٠	٥٠	On its natural extension without exaggeration in flatness or bending, and that the dorsal region adheres to the back of the chair, taking into account not to spasm the muscles so that they perform their functions without fatigue or extra effort.	١
٢	✓	١٦.٩	٨.٦	%٨	%٩٢	٤٦	Hump back and concave cotton in the natural position.	٢
٦-belly								
١	✓	١٢.١	٦.٢	%٤	%٩٦	٤٨	Flat with your abdominal muscles pulled in and up without stiffness.	١
٧-pelvis								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Sit at the hipbones and the length of your thighs (it is preferable to increase the area in contact with the seat).	١
٨-legs								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Push the buttocks back and they are adjacent to the back of the chair and the thighs in a comfortable position on the chair and the corners of the thighs, knees and heels are right (90 degrees). The weight of the body must be distributed between the buttocks and the thighs, not the top of the buttocks and the sacrum.	١
٢	✓	١٦.٩	٨.٦	%٨	%٩٢	٤٦	The knees should be at hip level, and a footrest can be used to achieve this, and the distance between the knees and feet is chest wide.	٢
٣	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	The feet should be straight and completely flat on the floor.	٣

It is clear from Table No. (15) the standard error of the acceptance and rejection ratio for the persistent and effective technical points of the parts of the body participating in the performance of the proper sitting position.

Table (16)

The standard error of acceptance and rejection ratio for effective and continuing technical points For body parts involved in performing correct walking. (N = 10)

Technical point arrangement	Technical point condition	The significance limit is 0.05	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Technical points for body parts involved in performing correct walking	م
١ - head and neck								
٢	✓	٢٠.١	١٠.٣	%١٢	%٨٨	٤٤	The head is straight over the center of the torso, the thighs and the feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the ground to keep the head level.	١
١	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	The ears are in one plane parallel to the ground and the middle of the nipple are parallel to the center of the shoulder joint (the middle of the top of the head of the humerus), looking forward with no stiffness of the head.	٢
١م	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	The neck is in a comfortable, arched position. Natural inward, not completely flat or severely curved.	٣
٢–shoulders								
٢	✓	٢٠.١	١٠.٣	%١٢	%٨٨	٤٤	Relaxed and in one plane without any shifting forward, backward or upward, with the two plates being flat.	١
١	✓	١٨.٥٩	٩.٤٩	%١٠	%٩٠	٤٥	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	٢
٣-chest								
١	✓	١٢.١	٦.٢	%٤	%٩٦	٤٨	Lofted up and forward without exaggeration, and breathe freely.	١
٤-arms								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Arms freely swinging at the shoulder joint, palms facing inward.	١
٥–back								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	On its natural stretch without exaggeration in flatness or bending, taking into account	١

							that the muscles do not spasm until they perform their functions without fatigue or extra effort.	

Follow Table (16)

The standard error of acceptance and rejection ratio for effective and continuing technical points For body parts involved in performing correct walking. (N = 10)

Technical point arrangement	Technical point condition	The significance limit is 0.05	Standard error	The percentage of disapproval	Approval percentage	Estimated score	Technical points for body parts involved in performing correct walking	م
٢	✓	١٤.٧	٧.٥	%٦	%٩٤	٤٧	Hump back and concave of the cotton in the normal position, and reduce the movement of the trunk to the lowest level in order to save effort.	٢
٦-belly								
١	✓	١٢.١	٦.٢	%٤	%٩٦	٤٨	Flat with your abdominal muscles pulled in and up without stiffness.	١
٧-pelvis								
١	✓	٨.٧	٤.٤	%٢	%٩٨	٤٩	Straight and not thrust forward, backward, or sideways.	١
٨-legs								
٢	✓	٢١.٥	١١	%١٤	%٨٦	٤٣	Distribute the weight on the two legs evenly.	١
١	✓	٦.١٩	٣.١٦	-	%١٠٠	٥٠	The weight of the two legs must be straight forward, while maintaining some grip in the knee joint, and the leg should be weighted from the thigh, and the landing is lightly on the heel, then the body weight moves to the outer borders of the foot and then to the front of the foot so that you feel pressure on the ground through the fingers , Then the big toe pushes the ground to end the support phase.	٢
٣	✓	٢٢.٧٢	١١.٥٩	%١٦	%٨٤	٤٢	The feet are pointing forward, the movement of the feet is parallel to each other, and the horizontal distance between them is	٣

							about two inches.	
٤	✓	٢٥.٧	١٣.١	%٢٢	%٧٨	٣٩	The length of the walking stride is approximately equal to the length of the foot..	٤

Table No. (16) shows the standard error of the acceptance and rejection ratio for the continuous and effective technical points of the parts of the body participating in the correct performance of walking.

Statistical processors used:

- arithmetic mean- Estimated score. - percentage.

Correlation coefficient. - T-test - standard error.

- The weighted arithmetic mean. Significance limit. - standard deviation

Presentation and discussion of results:

the research aims to achieve the limits of the research sample, the researcher deals with presenting the results that he has reached based on the opinions expressed by the experts. Forms for evaluating the performance of the proposed legal statuses have been put in its final form attached (7).

First: The distribution of the degree corresponding to each technical point according to the degree assigned according to expert opinions for each part of the body participating in the performance of the orthopedic posture (under discussion). Table (17) illustrates this:

Table (17)

The distribution of the degrees of posture of the estimated technical points of the parts of the body participating in the performance .

The degree corresponding to the point	percentage	Weighted arithmetic mean	Total weights selected only	Estimated score	For technical points of body parts involved in posture	Body parts
First: the correct posture						
٠.٥	%٣٣.٦	٣.٧٥	١٢	٤٥	The head is straight over the center of the torso, thighs and feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	Head and neck
٠.٥	%٣٢.٨٦	٣.٦٧	١٢	٤٤	The head is straight over the center of the torso, thighs and feet, the chin does not deviate to the sides or back and slightly bent forward and	

					parallel to the floor to keep the head level.....	
٠.٥	%٣٣.٦	٣.٧٥	١٢	٤٥	The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	

Follow Table (17)

The distribution of the degrees of posture of the estimated technical points of the parts of the body participating in the performance

The degree corresponding to the point	percentage	Weighted arithmetic mean	weights selected	Estimated score	For technical points of body parts involved in posture	Body parts
١.٥	%١٠٠	١١.١٧	Total			
٠.٥	%٥٤.٩٩	٣.٧٥	١٢	٤٣	In one plane and hang freely without any displacement forward, backward or upward, parallel to the feet as the two boards are flat.	Shoulders
٠.٤	%٤٥.٠١	٣.٠٧	١٤	٤٣	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	
٠.٩	%١٠٠	٦.٨٢	Total			
٠.٦	%١٠٠	٤.٨٩	٩	٤٤	Lofted up and forward without exaggeration, and breathe freely.	chest
٠.٦	%١٠٠	٤.٨٩	Total			
٠.٦	%١٠٠	١٠	٥	٥٠	Two hanging freely, palms facing the body, thumb pointing forward.	arms
٠.٦	%١٠٠	١٠	Total			
١.٢	%٥٨.١٢	٥.٤٤	٩	٤٩	On its natural stretch without exaggerating flatness or bending.	back
٠.٩	%٤١.٨٨	٣.٩٢	١٢	٤٧	Hump back and concave cotton in the natural position.	
٢.١	%١٠٠	٩.٣٦	Total			
٠.٨	%١٠٠	٥.٤٤	٩	٤٩	Flat with the muscles of the abdomen stretched in and up without stiffness.	belly
٠.٨	%١٠٠	٥.٤٤	Total			
٦.٥	Total upper body					
٠.٧	%٦٠.٥	٦	٨	٤٨	Straight and not thrust forward, backward, or sideways.	pelvis
٠.٤	%٣٩.٥	٣.٩٢	١٢	٤٧	The angle of the pelvis ranges from (55-60) degrees.	

١.١	%١٠٠	٩.٩٢	Total			
٠.٦	%٥٨.١	٥.٤٤	٩	٤٩	Keep the shoulders straight, with a slight drape to relieve pressure on the hips.	knees
٠.٤	%٤١.٩	٣.٩٢	١٢	٤٧	The thighs are at one level.	
١	%١٠٠	٩.٣٦	Total			

Follow Table (17)

The distribution of the degrees of posture of the estimated technical points of the parts of the body participating in the performance

The degree corresponding to the point	percentage	Weighted arithmetic mean	weights selected	Estimated score	For technical points of body parts involved in posture	Body parts
١	%٧٠.٥	١٠	٥	٥٠	They are parallel and the metatarsals are facing slightly forward and outward, with body weight evenly distributed over the feet and also on the heel, the outer border and the metatarsal for each foot separately.	feet
٠.٤	%٢٩.٥	٤.١٨	١١	٤٦	The distance between them is as wide as the shoulders.	
١.٤	%١٠٠	١٤.١٨	Total			
٣.٥	**The total lower body**					

Second: the correct sitting position

٠.٥	%٣٣	٣.٦٧	١٢	٤٤	The head is straight over the center of the torso, the thighs and the feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	Head and neck
٠.٥	%٣٤	٣.٧٥	١٢	٤٥	The ears are at one level parallel to the ground and the middle of the nipple are parallel to the center of the shoulder joint (the middle of the top of the head of the humerus), looking forward with no stiffness of the head.	
٠.٥	%٣٣	٣.٦٧	١٢	٤٤	The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	
١.٥	%١٠٠	١١.٠٩	Total			
٠.٥	%٤٩.٥	٣.٧٥	١٢	٤٥	Relaxed and in one plane without any shifting forward, backward or upward, with the two plates being flat.	shoulders

٠.٥	%٥٠.٥	٣.٨٣	١٢	٤٦	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	
١	%١٠٠	٧.٥٨	Total			
٠.٧	%١٠٠	٥.٤٤	٩	٤٩	Lofted up and forward without exaggeration, and breathe freely.	chest
٠.٧	%١٠٠	٥.٤٤	Total			

Follow Table (17)

The distribution of the degrees of posture of the estimated technical points of the parts of the body participating in the performance

The degree correspondin g to the point	percentage	Weighted arithmetic mean	weights selected	Estimated score	For technical points of body parts involved in posture	Body parts
٠.٦	%١٠٠	٥.٤٤	٩	٤٩	Place the palms loosely on the thighs or one on the hand of the seat and the other on the thigh, or place them comfortably on the table, and the elbows are on either side of the body.	arms
٠.٦	%١٠٠	٥.٤٤	Total			
١.٣	%٥٦.٦	٥	١٠	٥٠	On its natural stretch without exaggeration in flatness or bending, and for the dorsal region to be adjacent to the back of the chair, taking into account not to spasm the muscles so that they perform their functions without fatigue or extra effort.	back
٠.٩	%٤٣.٤	٣.٨٣	١٢	٤٦	Natural hunched back and concave cotton.	
٢.٢	%١٠٠	٨.٨٣	Total			
١	%١٠٠	٥.٣٣	٩	٤٨	Flat with your abdominal muscles pulled in and up without stiffness.	belly
١	%١٠٠	٥.٣٣	Total			
٧	Total upper body					
١.١	%١٠٠	٥.٤٤	٩	٤٩	Sit at the hipbones and the length of your thighs (it is preferable to increase the area in contact with the seat).	pelvis
١.١	%١٠٠	٥.٤٤	Total			
٠.٨	%٤١.٨	٥.٤٤	٩	٤٩	Push the buttocks back and they are adjacent to the back of the chair and the thighs in	legs

					a comfortable position on the chair and the angles of the thighs, knees and heels are right (90 degrees). The weight of the body must be distributed between the buttocks and the thighs, not the top of the buttocks and the sacrum.	

Follow Table (17)

The distribution of the degrees of posture of the estimated technical points of the parts of the body participating in the performance

The degree corresponding to the point	percentage	Weighted arithmetic mean	weights selected	Estimated score	For technical points of body parts involved in posture	Body parts
٠.٦	%٢٩.٤	٣.٨٣	١٢	٤٦	The knees should be at hips level, and a footrest can be used to achieve this, and the distance between the knees and the feet is chest wide.	
٠.٥	%٢٨.٨	٣.٧٥	١٢	٤٥	The feet should be straight and completely flat on the floor.	
١.٩	%١٠٠	١٣.٢	Total			
٣	Total lower body					
Third: the correct walking position						
٠.٤	%٣٢.٨	٣.٦٦٧	١٢	٤٤	The head is straight over the center of the torso, the thighs and the feet, the chin does not deviate to the sides or back and slightly bent forward and parallel to the floor to keep the head level.	Head and neck
٠.٥	%٣٣.٥	٣.٧٥	١٢	٤٥	The ears are at one level parallel to the ground and the middle of the nipple are parallel to the center of the shoulder joint (the middle of the top of the head of the humerus), looking forward with no stiffness of the head.	
٠.٥	%٣٣.٥	٣.٧٥	١٢	٤٥	The neck is in a comfortable position, has a natural curve inward, and is not completely flat or severely bent.	
١.٤	%١٠٠	١١.١٧	Total			
٠.٤	%٤٩.٥	٣.٦٦٧	١٢	٤٤	Relaxed and in one plane without any shifting forward, backward or upward, with the	shoulders

					two plates being flat.	
٠.٥	%٥٠.٥	٣.٧٥	١٢	٤٥	Roll the shoulders back slightly, without overdoing it to prevent forward rotation.	
٠.٩	%١٠٠	٧.٤٢			Total	
٠.٦	%١٠٠	٥.٣٣	٩	٤٨	Lofted up and forward without exaggeration, and breathe freely.	chest
٠.٦	%١٠٠	٥.٣٣			Total	

Follow Table (17)

The distribution of the degrees of posture of the estimated technical points of the parts of the body participating in the performance

The degree corresponding to the point	percentage	Weighted arithmetic mean	weights selected	Estimated score	For technical points of body parts involved in posture	Body parts
٠.٧	%١٠٠	٥.٤٤	٩	٤٩	Arms freely swinging at the shoulder joint, palms facing inward.	Arms
٠.٧	%١٠٠	٥.٤٤			Total	
١.٢	%٥٨	٥.٤٤	٩	٤٩	On its natural stretch without exaggeration in flatness or bending, taking into account not to spasm the muscles so that they perform their functions without fatigue or extra effort.	back
٠.٨	%٤٢	٣.٩٢	١٢	٤٧	Hump back and concave of the cotton in the normal position, and reduce trunk movement to the lowest level in order to save effort.	
٢	%١٠٠	٩.٣٦			Total	
٠.٩	%١٠٠	٥.٣٣	٩	٤٨	Flat with your abdominal muscles pulled in and up without stiffness.	belly
٠.٩	%١٠٠	٥.٣٣			Total	
٦.٥	Total upper body					
١.١	%١٠٠	٥.٤٤	٩	٤٩	Straight and not thrust forward, backward, or sideways.	pelvis
١.١	%١٠٠	٥.٤٤			Total	
٠.٥	%١٨	٣.٥٨	١٢	٤٣	Distribute the weight on the two legs evenly.	legs
١.٢	%٥٠	١٠	٥	٥٠	The weight of the two legs must be straight forward, while maintaining some grip in the knee joint, and the leg should be weighted from the thigh, and the landing is lightly on the heel, then the body weight moves to the outer borders of the foot and then to the front of the foot so that you feel pressure on the ground through the fingers , Then the big toe pushes the ground to end the support phase.	

٠.٤	%١٧.٦	٣.٥	١٢	٤٢	The feet are pointing forward, the movement of the feet is parallel to each other, and the horizontal distance between them is about two inches.	
٠.٣	%١٤	٢.٧٩	١٤	٣٩	The length of the walking stride is approximately equal to the length of the foot.	
٢.٤	%١٠٠	١٩.٨٧		Total		
٣.٥	The total lower body					

Table (17) shows the distribution of the degrees of the estimated posture on the technical points of the parts of the body participating in the performance, and that for each posture there are (10) degrees estimated to vary their distribution on the parts of the body according to the relative degree of each part.

Duane V. Knudson (1997) asserts in this regard that identifying technical points enables the teacher to use verbal signs as alternatives to the more complex description that he should be familiar with (13: Scientific treatments of the proposed evaluation forms for the parts of the body involved in the performance of postural postures (correct standing- proper sitting- correct walking). (13: 123).

Scientific treatments of the proposed evaluation forms for the parts of the body involved in the performance of postural postures (correct standing- proper sitting- correct walking):

The scientific parameters of the questionnaires- in their final form, Attachment (7) - designed to assess the correct standing position- proper sitting - correct walking were found on the pilot study sample (primary school students) and the parameters are:

Validity: The validity of the form was verified in several ways to measure honesty through:

Logical honesty or truthfulness of the cont: It refers to the extent of the representation and correlation of the form components (body parts under study - phrases) with the aspect that it is measuring, and to achieve this, the researcher took care to build these forms referencing specialized scientific references and specialized previous studies in addition to consulting the experts, attached (1) in one or more aspects Research to ensure the logical construction of the form content and content.ent:

It refers to the extent of the representation and correlation of the form components (body parts under study - phrases) with the aspect that it is measuring, and to achieve this, the researcher

took care to build these forms referencing specialized scientific references and specialized previous studies in addition to consulting the experts, attached (1) in one or more aspects Research to ensure the logical construction of the form content and content. He also presented the technical points of orthopedic postures in order to determine the relative importance of an appropriate degree and formulate expressions and to determine the degree of influence of body parts and the technical points of orthopedic postures under discussion in Attachment (4) and Attachment (6). For this purpose, the adequacy of the form in evaluating the performance of the posture under investigation was also ascertained through special data according to the degree of its importance and on the basis of the total score of (10) degrees for the correct posture (upper body (6.5) degrees, and the lower part of the body. (3.5) degrees), (10) degrees for proper sitting position (upper body (7) degrees, lower body (3) degrees), and (10) degrees For correct walking, divided into (the upper body (6.5) degrees, and the lower body (3.5) degrees), and the score for each part was retrieved by calculating the degree of each technical point according to the relative importance of these points, and through that, the internal consistency of the form was achieved As a whole, and therefore on the validity of the hypothetical composition of the questionnaire, this is on the basis that sub-grades are a good indicator of the overall score.

Certification of the arbitrators:

A survey form for the opinions of the experts on the appropriateness and adequacy of the content of the forms for evaluating performance in orthopedic positions (correct standing- proper sitting- correct walking):

The final evaluation forms were presented to the experts in the field of specialization to seek their opinions on the appropriateness and adequacy of the forms attached (8) and this is shown in Table (18).

Table (18)

Arbitrators' opinions on the appropriateness and adequacy of the content of the performance evaluation forms in orthopedic positions (correct standing - proper sitting - correct walking) N = 10

percentage	inappropriate ١	Suitable to some extent ٣	Perfectly suited ٥	Statement
% ٩٢	-	٢	٨	number of arbitrators' opinions on the

				extent of appropriateness
	٤٦			Total
percentage	١ غير كافٍ Not enough 1	Fair enough 3	Quite enough 5	Statement
% ٩٦	-	١	٩	The number of arbitrators' opinions on the extent of sufficiency
	٤٨			Total

Table (18) shows that the percentage of arbitrators' approval of the suitability of the performance evaluation form in legal situations under investigation for the purpose for which it was established is (92%) and the percentage of the adequacy of the forms (96%), which indicates the suitability and adequacy of the designed evaluation form.

Self-honesty:

The self-validity of the performance evaluation form in the postural situations under investigation was calculated through the square root of the stability factor and Table (19) illustrates this, and the self-validity coefficient was between (0.62 - 0.77), which is a function of 0.05, where (t) is at 0.05 = (0.٣٤٩).

Stability:

The researcher used the calculation of stability using the method of application and re-application (Test re-test) on a sample of (30) students, and the application was repeated with an interval of two weeks from the first application. The researcher carried out the first application on the basic sample in the period from 10/3/2019 AD, then re-applied for the second time on the same sample in the period of 24/3/2019 AD, The researcher used to photograph the students' performance in the first and second applications and re-display it through the visual display to verify the stability of the Evaluation form and table (19) illustrate that.

Table (19)

The arithmetic mean, standard deviation, and correlation coefficient for the first and second applications For orthopedic situations under consideration (n = 30)

Self honsty	Tabular t value٠.٠٥	The calculated t	T value	The second application	First application	Study skills	م

		value And its significance		deflection	Average	deflection	Average		
٠.٧١		*٠.٥٠٦	٠.٠٣	٠.٨٢	٥.٥٣	٠.٨٧	٥.٥٨	good standing	١
٠.٦٢	٠.349	*٠.٣٨٥	٠.١٥	٠.٧٣	٥.١٣	٠.٧٠	٤.٩٥	good Sitting	٢
٠.٧٧		*٠.٥٨٦	٠.٠٢	٠.٩٦	٥.٩٠	٠.٩١	٥.٩٣	good walking	٣

T tabular at = 0.349 * d

It is clear from Table (19) that there is a statistically significant correlation between the averages of the scores of the first and second measures, where the calculated value of (r) was greater than the tabular value of (t) at the level of 0.5

The Conclusions and the Recommendations

The Conclusions

In light of the aim of the research and the procedures used by the researcher, and through the results that have been presented, the researcher can conclude the following:

1- The validity and validity of the designed performance evaluation form and considering it a good scientific method for evaluating performance in orthopedic positions (correct standing- proper sitting- correct walking), and it included (45) words representing the technical points of these situations, which are:

- Correct parking: (16) technical points with a total degree of (10) degrees.
- Proper sitting, number (14) technical points with a total degree of (10) degrees.
- Correct walking: (15) technical points with a total degree of (10) degrees.

2- Enjoying the designed form with high scientific transactions of honesty and consistency, where the self-validity was (0.62:0.77) and the percentage of arbitrators' approval for the suitability of the form for the performance evaluation in the legal situations under consideration for the purpose for which it was set was (92%) and the percentage of the adequacy of the forms (96%), as well. The measurement of the correlation coefficient of the two applications for the whole form (0.385:0.586) ranged, which is higher than its tabular value at 0.05, which indicates the stability of the form.

3- Technical points is a good way to evaluate performance in orthopedic positions (correct posture - proper sitting - correct

walking), in order to help teachers in a codified and easy scientific way through which the most accurate details of performance can be easily identified, which helps in the speed of learning the posture correctly.

The Recommendations

Within the limits of the objectives and society of this research, the selected sample and the results obtained recommend the followings:

1- The necessity to use the form of performance evaluation in orthopedic positions (correct posture- proper sitting- correct walking) when teaching students orthopedic positions.

2- Attention to developing and codifying special forms similar to the research form to evaluate performance in other legal situations.

3- Using the visual (video) recorder in evaluating students 'performance so that the teacher relies on documenting the situation (recording it) so that he can display it again to identify the quality of performance in general.

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