The effectiveness of external feedback on improving performance of the inverse mean holding skill and some psychological and cognitive variables among female students of the Faculty of Physical Education

*Dr/ Marwa Mohamed Ibrahim Al-Baqery

Introduction and research problem

The progress of levels in various games is the result of practical experiences to develop methods and methods of teaching and training, which aim to reach students to the highest levels of performance through which the highest levels of achievement can be reached different while learning motor skills.

The sport of wrestling is one of the sports that consists of a set of skills that lead from different situations and with different difficulties, which requires the educator to use methods, means and methods that stimulate the student's motivation and direct her energies and potentials towards the learning process and towards the learned skill by rooting some positive volitional traits. The female students.

The feedback methods and their uses are the result of attempts to develop, as it is one of the vocabulary that is extremely important in the educational and training field, and given that it is one of the most important scientific uses through which it is possible to build an information base that works on insight into performance requirements in changing situations through two basic functions, one of which works To direct the student's performance towards the positive goals to be achieved, and the second works to strengthen his motor responses. (16:13)

It is also one of the stations for mastering motor and schematic performance by modifying the motor response to reach the student to perform the proper motor path, which leads to Through the researcher's experience in the educational field, I noticed the reluctance of many students to implement this skill due to the positive creating the optimal response and at the required speed.

volitional traits it requires, which prompted the researcher to try to identify the effectiveness of external feedback on improving the level of performance of the skill of holding the Inverse medium from below and some psychological and cognitive variables Students of the Faculty of Physical Education.

The importance of feedback to the educational process becomes clear through the numerous studies carried out by researchers, whether in the Arab or foreign environment.

These studies have added many points that benefit the current study after the researcher extracted the used curricula and samples as well as the devices, tools and tests used. These studies agreed on the impact of feedback on the level of performance, and none of the studies exposed the

* Lecturer in the Department of Fundamentals of Physical Education, Faculty of Physical Education, Sadat City University

impact of feedback on the psychological or cognitive aspect.

research aims:

The research aims to identify the effectiveness of feedback on improving performance for the skill of holding the inverse medium and some psychological and cognitive variables among female students of the Faculty of Physical Education, by identifying: -

1- The effectiveness of feedback (audio) on improving the level of performance of the skill of holding the reverse medium from the bottom The female students of the Faculty of Physical Education have the research sample.

2- The effectiveness of the feedback (visual) on improving the performance level of the skill of holding the reverse medium from Below, the students of the College of Physical Education have the research sample.

3- The effectiveness of feedback (audio-visual) on improving the level of performance of the skill of holding the middle The inverse from the bottom among the female students of the Faculty of Physical Education, the research sample.

4- The effectiveness of feedback on some psychological variables (perception ability- focus attention-ability On facing anxiety- self-confidence) and cognitive among female students of the Faculty of Physical Education, the research sample.

5- The difference in the effect of the three methods of feedback on improving the level of performance of the skill of holding the middle The inverse from the bottom and some psychological and cognitive variables among the female students of the Faculty of Physical Education, the **research sample.**

Research hypotheses

1- There are statistically significant differences between the average scores of the pre-measurement and the average scores of the post-measurement for the auditory feedback group (the first experimental group) in the performance level of the inverse mean holding skill and some psychological and cognitive variables in favor of the average post-measurement scores.

2- There are statistically significant differences between the average scores of the pre-measurement and the average scores of the post-measurement for the visual feedback group (the second experimental group) in the performance level of the inverse mean holding skill and some psychological and cognitive variables in favor of the average post-measurement scores.

3- There are statistically significant differences between the average scores of the pre-measurement and the average scores of the post-measurement for the audio-visual feedback group (the third experimental group) in the performance level of the inverse mean holding skill and some psychological and cognitive variables in favor of the average post-measurement scores.

4- There are statistically significant differences between the average post-measurement scores of the three research groups in the performance level of the inverse mean holding skill and some psychological and cognitive variables.

5- There is a statistically significant correlation between the performance

level of the inverse mean holding skill and the psychological and cognitive variables.

Search terms:-

1 -Feedback (Response Produced)

It is the set of stimuli that depend in their form and subject on the nature of the performance issued by the student Which helps direct the interview responses and then evaluate them, so the rate of their appearance increases in the following situations (1: 61)

2- The audio methods

It is everything that the ear responds to through spoken words such as explanation, presentation and verbal description of the motor skill before and after its performance.

3 - The visual methods

It is everything that the eye responds to during the learning process, such as watching movement patterns or written or illustrated explanations.

4 - The audio method and visual aids

It is the set of different tools and methods that are used in educational situations and depends on arousal The senses of hearing and sight, that is, the motor behavior is the result of an audible and visual approach. (39: 113)

5 - Performance level

It is the degree of motor behavior that the student reaches and is the result of learning processes to acquire and master The movements of the exercised activity, which is characterized by fluidity and accuracy. (22: 68)

Research steps and procedures:

Research Methodology:

To achieve the objectives of the research and to test its hypotheses, the researcher used the experimental method, using three experimental groups and the method of pre- and post-measurement for the three groups.

Research community and sample:

- The research community represents the students of the Faculty of Physical Education at Sadat City University for the academic year 2019/2020. The researcher chose a deliberate sample of 30 students from the first year students. The researcher divided the female students into three groups in a random manner, then found parity between the three groups in age Time, physical measurements, physical measurements, and the level of skill performance for the two skills of holding the inverse medium from below and above, and psychological and cognitive variables. Tables (1), (2), (3) illustrate this

Table (1)

Significance of differences between the three groups in chronological age, weight and body measurements

Variables	Contrast source	degree of freedom	sum of squares	average sum of squares	F value	Indication level
Chronological age	between groups	2	‹133	‹066	0.50	nonfunction
	within groups	27	3.569	‹132		
the weight	between groups	2	2,	1,	0	nonfunction
	within groups	27	2452.6	90.8		
total length	between groups	2	1.9	9,	0.05	nonfunction
	within groups	27	487.5	18.1		

F value at a significant level (05,) = 3.35

It is clear from Table (1) that the calculated value of p is less than the value of the tabular value and that it ranged between zero and 37, which indicates that there are no statistically significant differences between the three experimental groups, which confirms the equivalence of the research groups in the variables (chronological age - weight body measurements).

Table (2)
The significance of the differences between the three groups in the physical, skill and psychological changes in the tribal measurement

Variables	Contrast source	degree of freedom	sum of squares	average sum of squares	F value	Indication level
Back muscle strength	between groups	2	6.1	3	0.12	Non function
	within groups	27	680.1	25.2		
Leg muscle strength	between groups	2	32.1	16	0.87	Non function
	within groups	27	479.3	18.4		
right grip strength	between groups	2	2.6	1.3	0.20	Non function
	within groups	27	178.2	6.6		
left grip strength	between groups	2	1.87	،93	0.15	Non function
	within groups	27	173.6	6.43		
Flexibility of the spine	between groups	2	0.60	0.30	0.17	Non function
	within groups	27	48.60	1.8		
Hold the center reverse from the bottom	between groups	2	6.1	3	0.48	Non function
	within groups	27	680.1	25.2		
mental visualization	between groups	2	32.1	16	0.05	Non function
	within groups	27	479.3	18.4		
focus attention	between groups	2	2.6	1.3	0.06	Non function
	within groups	27	178.2	6.6		
face anxiety	between groups	2	1.87	،93	0.27	Non function
	within groups	27	173.6	6.43		
Self confidence	between groups	2	0.60	0.30	0.25	Non function
	within groups	27	48.60	1.8		
Psychological skills intelligence	between groups	2	175.30	6.49	0.47	Non function
	within groups	27	0.067	0.033		
cognitive test	between groups	2	17.40	0.644	0.05	Non function
	within groups	27	175.30	6.49		

F value at a significant level (05,) = 3.35

It is clear from Table No. (2) that the calculated p value is less than the tabular value and it ranged between 0.05 and 0.87, which indicates that

there are no statistically significant differences between the three experimental groups, which confirms the equivalence of the research groups in the physical, psychological and cognitive variables.

Search tools:

To achieve the research objectives, the researcher used the following tools:

1- A restameter for measuring the total length.

2- A dynamometer to measure the strength of the back muscles and the strength of the muscles of the legs.

3- A dynamometer to measure the strength of the fist muscles.

4 - A tape measure.

5 - A computer.

6 - A projector and a display screen.

Search tests:

1- Psychological Intelligence by Stefan Bull and John Albinson Quote And modified by Muhammad Hassan Allawi.

2- List of Psychological Skills for Sport by Mahoney, Tyler and Perkins, Perkins 1997, Quoted by Muhammad Hassan Allawi.7 - Fixed display board for the reverse center grip skill.

3- The skill performance appraisal form prepared by the researcher.

4- The cognitive test prepared by the researcher.

Scientific coefficients for tests:

The researcher found the scientific coefficients of the tests used as follows:

A- Scientific transactions for intelligence psychological skills: -

First, validity:

The researcher calculated the validity of psychological skills intelligence by calculating:

1 Finding internal consistency, where the researcher applied intelligence to ten students from the first year and from outside the research sample, then the researcher calculated the validity of the content or internal consistency by finding the correlation coefficients between the degree of each of the four selected axes and the total degree of intelligence and the table (3) shows that .

Table (3)

Correlation coefficients between the four axes and the overall degree of intelligence n = 10

axles	mental visualization	focus attention	Face anxiety	Self confidence
Total marks	0.60	0.93	0.66	0.85
The tabular R value at a significant level (0.05) equals (0.57).				

It is evident from Table (3) that there is a statistically significant correlation between the scores of each of the axes of the total degree of psychological skills intelligence, and that the values of the correlation coefficients ranged between (0.60, 0.93) which are high correlation coefficients.

2- validity related to the test:

The researcher applied psychological skills intelligence to ten students of the second year and outside the research sample, then she applied the list of psychological skills of

Mahoney, Teller and Buckins quoting Muhammad Hassan Allawi, where this type of honesty is done to calculate the extent to which the scores of a sample of individuals on a test match with Their score on another test that measures the same trait as the test used. (22:62)

And Table (4) illustrates this

Table (4)

Correlative Validity of Psychological Skills Intelligence and Psychological Skills List n = 10

Variables	Psychological skills intelligence		List of psychological skills		R value
	medium	deviation	medium	deviation	
mental visualization	12.5	0.85	22.9	1.29	0.76
focus attention	12.8	1.13	23.30	1.49	0.96
Face anxiety	14	1.16	24.60	1.26	0.84
Self confidence	13.5	1.27	24.20	1.55	0.85
Total marks	52.9	3.35	95	3.65	0.95
mental visualization	12.5	0.85	22.9	1.29	0.76

The value of the tabular R at a significant level of 0.05 equals (0.444)

It is clear from Table (4) that the calculated value of t is greater than the value of the tabular t value and that the values of the correlation coefficients ranged between 0.76, 0.96, which supports the validity of the scale and the dialogue chosen to measure the psychological variables under study.

Secondly, the stability calculation:

The researcher calculated the stability to investigate psychological skills by

1 Re-examination method: -

The researcher applied the intelligence to a sample of ten students from the second year and from outside the research sample, then re-applied the intelligence to them after an interval of 21 days, from Sunday (6/10/20019) until Monday (28/10). 2019) Then the researcher calculated the correlation coefficients between their scores in the two applications, and Table No. (5) illustrates this.

Table (5)

Correlation coefficients between test scores and retest scores for intelligence intelligence n = 10

Variables	test scores		retest scores		T value	R value
	medium	deviation	medium	deviation		
mental visualization	12.5	0.85	12.6	1.35	0.20	0.78
focus attention	12.8	1.13	12.9	0.99	0.21	0.57
Face anxiety	14	1.16	14	1.63	صفر	0.60
Self confidence	13.5	1.27	13.9	1.37	0.68	0.86
Total marks	52.9	2.25	53.30	3.83	0.25	0.77

The value of the tabular R at a significant level of 0.05 equals (0.444)

It is evident from Table (5) that the calculated t values are greater than the tabular t values in all variables and that the values of the correlation coefficients ranged between 0.57 and 0.86, which indicates a statistically significant correlation between the scores of the students of the College of Physical Education and the members of the exploratory sample in the application and re-application and that intelligence And the interlocutor is characterized by a high degree of stability.

2 Calculation of internal consistency:

The researcher found stability by using the Coefficient Alfa equation (11: 57).

Table (6)

Alpha coefficient for intelligence psychological skills n = 10

axles	mental visualization	focus attention	Face anxiety	Self confidence	Total marks
Alpha coefficient	0.90	0.90	0.90	0.90	0.93

The tabular R value at a significant level (0.05) equals (0.57).

It is clear from Table (6) that the levels of the alpha coefficient are high, which indicates the availability of a high degree of stability.

Scientific Transactions for the Cognitive Test

First, the honesty calculation:

The researcher calculated the validity of the cognitive test using

1 Calculation of self- validity

Where the researcher found the square root of the correlation coefficients between application and re-application, and the coefficient of self-honesty was (0.96).

Second, the stability calculation

The researcher calculated the stability by applying the test to a sample of ten students from the first year and from outside the research sample, and then re-applying the test to them after (21) days and the table (8) explains this

Table (8)

Correlation coefficients between test scores and retest scores for the cognitive test n = 10

Variables	test scores		retest scores		T value	R value
	medium	deviation	medium	deviation		
cognitive test	3.41	0.87	3.53	0.93	0.41	0.871

The value of the tabular R at a significant level of 0.05 equals (0.444)

It is clear from Table No. (8) that the calculated value of t is greater than the value of the tabular value at the significance level of 0.05 between the degrees of application and re-application of the cognitive test, which indicates the stability of the test.

Scientific Parameters of the Skill Performance Assessment Form

First, honesty:

1 - The researcher presented the form to five arbitrators who obtained a Doctorate of Philosophy in Education

They have at least ten years of experience in the field of education and training, and the percentage of agreement on The three items of the form are 100%.

2 The researcher calculated the validity of the arbitration on the form after applying the skill level test on ten Female students of the second year and outside the research sample. Two of the three forms were selected for the arbitrators, then the researcher found the difference between the averages of the evaluation scores.

Table (9)

The validity of the arbitration for the skill performance evaluation form n = 10

Variables	the first form		the second form		T value
	medium	deviation	medium	deviation	
Hold the center reverse from the bottom	3.41	0.87	3.53	0.93	0.41

T-value at a significant level (0.05) = 2.26

It is evident from Table (9) that there are no statistically significant differences between the average scores of the first questionnaire and the average scores of the second questionnaire, which indicates the sincerity of the arbitration.

Secondly, calculate the stability of the form

The researcher applied the evaluation to ten students from outside the research sample and then re-evaluated after five days and then found the correlation coefficients between the first evaluation and the second evaluation and the table (10) illustrates this

Table (10)

Correlation coefficients between the scores of the first evaluation and the second evaluation n = 10

Variables	the first form		the second form		T value	R value
	medium	deviation	medium	deviation		
Hold the center reverse from the bottom	6.47	0.61	6.51	0.45	0.16	0.89

The value of R at the level of significance 0.05 = 0.632

It is clear from Table (10) that the calculated value of t is greater than the value of the tabular value, which indicates the stability of the evaluation process.

Steps to do the search Experimentation:

The researcher conducted the exploratory experiment for the study for a period of five days, from Saturday corresponding to (2/11/2019) and until Wednesday (6/11/2019) on a sample of ten female students from the

first year and from outside the research sample, in order to identify the difficulties or obstacles that the researcher may face when applying the basic experiment and to determine the validity of The devices and tools used during the application process, and the researcher verified that the three methods that will be used are clear and achieve the desired aim .

Tribal measurements:

The researcher made tribal measurements for the variables under study on the three groups that made up the research sample as follows:

1- Conducting psychological measurements on Saturday (9/11/2019).

2- Conducting cognitive tests on Saturday (9/11/2019).

3- Making skill measurements for the reverse center grip movement on Sunday (10/11/2019).

Basic experience:

The researcher applied the proposed experiment by introducing the three methods of feedback to the three groups. The auditory feedback was applied to the first experimental group, the visual feedback to the second experimental group, and the audio-visual feedback to the third experimental group, for a period of (15) minutes before the start of each A teaching unit and by repeating the performance five times between external viewing or listening, during the period from Tuesday (12/11/2019) until Tuesday corresponding to (7/1/ 2020) with a weekly unit for each group separately.

Dimensional measurements:

The researcher made dimensional measurements for the three groups in all the variables under study as follows:

1- Conducting psychological measurements on Wednesday (1/8/2020).

2- Conducting cognitive tests on Wednesday (8/1/2020).

3- Making skill measurements for the reverse center grip movement on Tuesday (1/1/2020).

Show results:

The current study aims to identify the effectiveness of feedback (audio-visual-audio-visual) on the level of performance of the skills of holding the reverse medium from below and above and some psychological and cognitive variables by applying them to the research sample represented by (30) female students from the College of Education Sports for the academic year 2019/2020, and to verify this, the researcher divided the research sample into three experimental groups, the first experimental group with which audio feedback was used, the second experimental group with which it used visual feedback, the third experimental group with which it used audio-visual feedback, and it will The researcher presents the results of the study according to the sequence of its hypotheses.

Table (11)

The difference between the mean of the pre- and post-measurement in the variables Skill, psychological and cognitive for the three groups n = 10

Variables	groups	Tribal measurement		dimensional measurement		T value	Indication level
		medium	deviation	medium	deviation		
Reverse center hold	first trial	5.55	0.36	6.66	0.42	5.55	function
	second trial	5.53	0.26	7.03	0.30	12.5	function
	Third trial	5.66	0.33	8.01	0.43	13.05	function
mental visualizatio n	first trial	12.20	1.55	14.00	1.83	2.27	function
	second trial	12.10	1.10	15.40	1.51	5.32	function
	Third trial	12.3	1.64	18.00	1.49	7.7	function
focus attention	first trial	10.7	1.46	12.80	1.03	3.55	function
	second trial	10.9	1.37	13.6	1.35	4.22	function
	Third trial	10.9	1.52	17.3	1.42	9.28	function
Face anxiety	first trial	10.7	1.16	13.2	0.63	5.68	function
	second trial	10.9	0.73	13.7	0.95	7.00	function
	Third trial	11.00	0.82	13.70	1.16	7.87	function
Self confidence	first trial	11.60	1.07	14.10	1.20	4.63	function
	second trial	11.7	1.06	14.4	0.97	5.63	function
	Third trial	11.9	0.74	18.20	1.93	9.13	function
Total marks	first trial	45.00	2.87	54.00	3.30	6.16	function
	second trial	45.60	1.84	57.20	2.3	11.84	function
	Third trial	46.10	2.81	70.8	4.4	14.20	function
cognitive test	first trial	6.5	0.85	10.4	0.52	11.81	function
	second trial	6.6	0.70	10.7	0.48	14.6	function
	Third trial	6.5	0.67	12.7	1.06	14.76	function

The tabular t value at the 0.05 level of significance equals 2.26

It is clear from Table (11) that the calculated value of t is greater than the value of the tabular value in all study variables and that the value of the difference between the means ranged between (2.27) for the difference between the pre and post measurements of the mental perception variable for the first experimental group, (14.76) for the difference between the pre and post measurements For the cognitive variable of the third group.

Table (12)
Analysis of variance between the three groups of variables Skill, psychological and cognitive in dimensional measurement n = 30

Variables	Contrast source	degree of freedom	sum of squares	average sum of squares	F value	Indication level
Reverse center hold	between groups	2	9.73	4.87	0.12	function
	within groups	27	4.03	0.149		
mental visualization	between groups	2	82.40	41.20	0.87	function
	within groups	27	70.40	2.61		
focus attention	between groups	2	115.27	57.63	0.20	function
	within groups	27	44.10	1.63		
Face anxiety	between groups	2	100.07	50.03	0.15	function
	within groups	27	23.80	0.881		
Self confidence	between groups	2	104.47	52.23	0.17	function
	within groups	27	54.90	2.03		
Total marks	between groups	2	1591.5	795.7	0.48	function
	within groups	27	321.2	11.90		
cognitive test	between groups	2	31.267	15.633	0.05	function
	within groups	27	14.60	0.541		

Table value (F) at the level of significance (0.05) = 3.35

It is clear from the table (12) that the calculated ph value for all variables ranged between (13.29), (66.87) and that all of them are greater than the value of the tabular value, which indicates that there are statistically significant differences between the three groups, so the researcher will find the least significant difference between the three groups in the study variables by calculating (L.S.D).

Table (13)
The difference between the averages of the three groups in the skill psychological and cognitive variables of the dimensional measurement

Variables	groups	mediums	first trial	second trial	Third trial	Values LSD
Reverse center hold	first trial	6.66	–	0.37	1.35	0.15
	second trial	7.03		–	0.98	
	Third trial	8.01			–	
mental visualization	first trial	14.00	–	1.40	4.00	1.64
	second trial	15.40		–	2.6	
	Third trial	18.00			–	
focus attention	first trial	12.80	–	0.8	4.5	1.30
	second trial	13.60		–	3.7	
	Third trial	17.30			–	

Follow Table (13)
The difference between the averages of the three groups in the skill psychological and cognitive variables of the dimensional measurement

Variables	groups	mediums	first trial	second trial	Third trial	Values LSD
Face anxiety	first trial	13.20	–	0.50	4.10	0.96
	second trial	13.70		–	3.60	
	Third trial	17.30			–	
Self confidence	first trial	14.10	–	0.3	4.10	1.45
	second trial	14.40		–	3.8	
	Third trial	18.20			–	
Total marks	first trial	54.00	–	3.20	16.8	3.51
	second trial	57.20		–	13.6	
	Third trial	70.80			–	
cognitive test	first trial	10.40	–	0.3	2.3	0.75
	second trial	10.70		–	2	
	Third trial	12.70			–	

It is clear from Table (13) that the value of the difference between the averages of the third experimental group and each of the first experimental group and the second experimental group is greater than the value of LSD in all the variables under study in the post-measurement, while the value of the difference between the mean scores of the first experimental group and the average scores of the second experimental group is less than LSD value in all variables.

Table (14)
Correlation coefficients between the performance level of the inverse mean holding skills and psychological and cognitive variables

skill level	groups	mental visualization	focus attention	Face anxiety	Self confidence	Total marks	cognitive test
Reverse center hold	first trial	0.561	0.564	0.602-	0.530	0.565	0.851
	second trial	0.549	0.550	0.741-	0.524	0.583	0.614
	Third trial	0.682	0.672	0.731-	0.634	0.639	0.669

Table R value at a significant level (0.05) = 0.482

It is evident from the table (14) that there is a statistically significant correlation between the performance level of the two skills of holding the middle inverse from the bottom and each of the mental visualization and concentration of attention and self-confidence and the ability to face

anxiety and the cognitive aspect in the dimensional measurement of the three groups.

Second: Discussing the results

Training and exercise are the first pillar for the success of learning motor skills, and the second pillar of effectiveness and importance in influencing the level of motor skills performance is the feedback, whether the external feedback is auditory, visual or audio-visual, it works to help the student discover errors Improving the level of skill performance, as it addresses the students' senses of hearing and sight, which leads to focusing attention on what is heard or presented to him, which leads to the realization and understanding of the technical steps at their required speed, performance time and optimal motor path.

1- Discussing the first hypothesis

It is clear from Table No. (11) that there are statistically significant differences between the mean scores of the pre-measurement and the average scores of the post-measurement for the first experimental group, with which the external auditory feedback was used, through the verbal explanation of the two skills of holding the inverse medium from the bottom and focusing on the technical steps after the performance periods, as well as Verbal correction of errors observed during performance. The results of the current study are in agreement with the results of Siham Abdullah's study (8), Yahya Saleh's study (41), Sabah Farouz's study (9), Laila Abbas Suleiman's study (20), and Asmaa Hekmat's study (4). In that the auditory feedback has an effect on improving the level of performance, and it is consistent with what was reported by Muhammad Hassan Allawi that the auditory aids affect the performance of the motor skill, as the verbal presentation has an effective effect, and it is also possible to benefit from the various verbal observations and discussions that take place between The track and the player. (26: 75-77)

The researcher believes that the provision of auditory feedback has helped to increase the motivation of the students of the first experimental group, which had an effect in reducing their level of anxiety and tension, which helped to quickly realize the difference between performance and optimal performance, and accordingly the students tried to match the instructions they listened to during performance In addition, the increased understanding and awareness of the technical steps of the skill of holding the center reverse from the bottom led to an increase in their cognitive aspect.

Thus, the first hypothesis of the research is achieved, which states: "There are statistically significant differences between the average degrees of the pre-measurement and the average scores of the post-measurement for the audio feedback group (the first experimental group) in the level of performance of the skill of the inverse mean holding skill and some psychological and cognitive variables in favor of the average post-measurement scores.

2 Discussing the second hypothesis of the research

It is clear from Table No. (11) that there are statistically significant differences between the mean scores of the pre-measurement and the average scores of the post-measurement of the students of the Faculty of Physical Education, members of the research sample for the second experimental group, with whom the external visual feedback was used, which depended on watching the optimal performance of the two skills of holding the inverse medium, whether from The results of the current study agree with the results of the study of Mahmoud Obaid (18), the study of Mustafa Abdel Qader Al-Jilani (34), and the study of Mustafa Salah Al-Din (33).), the study of Islam Muhammad Mahmoud (5), the study of Aida Ali Hussein (13), the study of Hussam Radwan Kamel (7), and the study of John David (47), and the results of the current study agreed with what Suhair Labib reported that the presented skill helps to increase comprehension and contributes to a high degree to the individual's ability to learn quickly and master the learned skills, as it shows the motor paths, and the visual images are useful effectively in the first stage of learning, as well as the stages of installation and completion The results of the current study also agreed with what was reported by Muhammad Hassan Allawi that the real effect of the visual skill model is that it acts as a motive to mobilize the player's forces and internal energies in order to tend to continue to perform the skill and try to imitate what he witnessed, and here we find that the player's readiness is recommended by the good visual model . What Ahmed Amin Fawzi referred to is that feedback has become one of the most important variables in the learning and training process for acquiring motor skills. (2 : 31)

The researcher believes that the visual feedback has helped the female students of the research sample of the second experimental group to change their motor behavior, through which the subsequent performances of the feedback were enhanced, and the wrestlers' motivation was also aroused and their tension reduced, which led to an increase in the focus of attention during the presentation and afterwards. During the performance, the young wrestlers also increased the ability to visualize, which led to an increase in their confidence in themselves, and therefore they became able to recognize the difference between their current performances and the viewed performances and try to reduce this difference by increasing the information obtained from the viewing process, which led to modifying The kinetic trajectories have and the difference between the two measurements, the tribal and the post, and thus the second hypothesis of the study is achieved, which states "There are statistically significant differences between the average degrees of the tribal measurement and the average degrees of the post measurement for the visual feedback group (the second experimental group) and in favor of the average degrees of the post-measurement.

3 Discussing the third hypothesis

It is clear from Table No. (11) that there are statistically significant

differences between the mean scores of the pre-measurement and the average scores of the post-measurement of the students of the Faculty of Physical Education, members of the research sample for the third experimental group, with which audio-visual feedback was used in the performance level of the inverse medium-holding skills and the psychological and cognitive variables , in which the combination of listening to instructions and verbal technical steps and watching for the optimal performance of the two skills of the reverse middle grip, either through still images or by displaying the two skills through the display screen. Fathi Zaki (6), Aida Ali Hussein study (13), Mustafa Salah El-Din (34), Muhammad Ahmed Abdel-Razek (24), Van Wern Jane, Amen and Butt study (53), Thomas Henick and Rohr (52), And the study of Antonio and Derry (42) that the use of audio-visual feedback is effective and has a high degree of impact on improving the level of motor performance. Skill is what is concerned primarily with the learning process, which uses verbal explanation, then a practical model, and the use of images and films helps in forming a mental perception that leads to the speed of skill acquisition and improvement of its performance, and it agrees with what Mufti Ibrahim indicated that feedback plays an important role in learning and mastery (35). : 183)

The researcher believes that the repetition of listening, watching, and then performing increases the student's convictions and raises his psychological energy, which helps to improve his performance, which increases his motivation to continue performing and try to match between the visual and read models and his performances during repetition, which helps to enhance the correct and correct responses, and the combination of The two types of audio-visual feedback have helped to increase the focus of the students' attention from the members of the research sample from the third experimental group, as well as increase the degree of their mental perception and their confidence in their reaching the optimum level, which led to the difference between the pre and post measurements, and thus the third hypothesis of the research is achieved, which Its text "There are statistically significant differences between the average scores of the pre-measurement and the average scores of the post-measurement for the audio-visual feedback group (the third experimental group) in the performance level of the inverse mean holding skill and some psychological and cognitive variables in favor of the average post-measurement scores."

4 Discussing the fourth hypothesis of the research

It is evident from the table (12) that there are statistically significant differences at the level of significance of 0.05 between the average scores of the three groups in the performance level of the inverse mean holding skill and the psychological and cognitive variables, as Table No. (13) indicates that there are statistically significant differences between each of the average scores of the experimental group The first and the average scores

of the second experimental group in favor of the average scores of the second group, and the presence of statistically significant differences between the average scores of the first experimental group, the second experimental group, and the third experimental group in favor of the average degrees of the third experimental group in the performance level of the skill of holding the inverse medium and the psychological and cognitive variables, which indicates that Audio-visual feedback has a high degree of influence on improving performance, increasing attention focus, visualization, self-confidence, and reducing anxiety levels. The results of the current study agreed with the results of Mahmoud Metwally Bandari's study (29), Mahmoud Mohamed Mahmoud's study (30), and Hisham's study Saber Ali (40), the study of Ferreira and Ran Dahl (45), the study of Edward Hebert (44), and the study of Janelle (46). and the study of Laila Sand-Reson (49), the study of Van Wern Jane (53), the study of MXN (50), and the study of Antonio and Derry (42) in that the feedback is effective as the results of the current study agree with what was reported by Singer that knowledge of Errors and the difference between the level of performance and optimal performance through explanation and observation provides information that is a basis for modifying the motor path in the following attempts and this helps to approach towards achieving the goal, as it agrees with what Muhammad Hassan Allawi referred to in that when confronting the wrong performance with the correct performance through feedback Audio-visual, which is commensurate with the individual's ability to imitate, which is carried out through a good and attractive presentation, characterized by clarity of the image and understanding of information. (26:32)

The researcher believes that the highest degrees of self-evaluation took place with the members of the third experimental group, in particular the formative evaluation, where they were provided with information about the skill that led to a change in their motor behavior as a result of the reinforcing role of audio-visual feedback, which led to arousing their motivation to perform and directing their psychological energies towards learning and mastering the two skills and upgrading In terms of their knowledge, and thus the fourth hypothesis of the research was achieved, which reads, "There are statistically significant differences between the average degrees of the dimensional measurement of the three research groups in the performance level of the inverse mean holding skill and some psychological and cognitive variables in favor of the average scores of the third experimental group."

Recommendations

In light of the research results and conclusions, the researcher recommends the following:

1- The necessity of using external audio-visual feedback while learning the motor skills of female students of the Faculty of Physical Education.

2- The need to rehabilitate the teaching staff on how to benefit from the

application of different feedback methods during educational units.

3- Attempting to practically apply the results of the study and generalizing them when teaching all practical subjects for different classes

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