

## Effect the (SQ3R) strategy to reducing psychological tension and learning the shot put for students

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### Abstract

The importance of the research lies in the use of a modern teaching strategy, which is the (SQ3R) strategy, which keeps pace with developments in the field of teaching and knowing its impact on reducing psychological stress and learning the technical performance the shot put for students.

The research aims to identify the effect of using the (SQ3R) strategy in reducing psychological stress and learning the shot put for students, as well as identifying the significant differences between the experimental and control groups in the results of the post-tests.

The research community was determined by students of the first stage in the College of Physical Education and Sports Sciences - University of Kerbala, who numbered (94) students, and the research sample was chosen randomly from the original research community, by lottery method, and with a number of (30) students, they were divided into two equal groups, and by (15) student for each group.

One of the most important conclusions reached by the researchers is that the tired strategy and the method prepared by the subject teacher had a positive effect on psychological stress tests and learning the technical performance the shot put for students. The results also showed that the students of the experimental group outperformed the students of the control group in tests of psychological tension and learning the technical performance the shot put for students.

One of the most important recommendations reached by the researchers is to emphasize the use of the (SQ3R strategy) in learning the rest of the athletics activities because of its good results, focusing on theoretical concepts and linking them to the practical aspect during the implementation of the lesson, as well as conducting educational courses and holding lectures and seminars for physical education teachers and directing them to the need for diversification and the use of metacognitive strategies, as recent studies have proven their effectiveness in learning.

**Keywords:** Effect the (SQ3R) strategy to reducing psychological tension

### Introduction:

The educational process is based on an important means, which is the transfer of

knowledge and information from the teacher to the learner in an appropriate manner. An

efficient teacher is the one who can diversify the use of different methods and provide everything that is new in his field to raise the boredom and boredom that accompanies the learner during learning and resulting from the use of one method. As our contemporary world is witnessing a scientific and information revolution that has surpassed the scientific and technological leaps that preceded it over the centuries, which requires keeping pace with this accelerating scientific and technical development, the educational institution is the pioneer in the emergence of this scientific progress, and this is evident through the strategies, methods and modern teaching methods that lead to a qualitative leap in the path of education, which led to the need for the emergence of strategies that mimic this development, including the (SQ3R) strategy. The (SQ3R) strategy is one of the meta-cognitive strategies that lead learners through basic and specific stages towards an interactive direction with scientific subjects and materials in order to reach higher levels of understanding and thinking. The (SQ3R) strategy is compatible and consistent with the skills that depend on the actual and serious participation of students in the learning process. It is an attempt to provide learners with educational methods compatible with their capabilities in order to reach the most appropriate way to deliver the material to the learner and absorb them and then keep it for the longest possible period of time.

Psychological stress is one of the most important psychological manifestations facing students in the current era, which is full of complexities, problems, requirements and pressures of daily life, and is inherent to most students because of what they seek to learn and fear of failing and not succeeding. We may see some students controlled by tension to a very high degree, which ultimately affects the skill level and

achievement, and dissipates physical and skill energy, and we see others characterized by a reasonable degree that can be important motives that push them with enthusiasm and seriousness to learn. So, psychological stress must know its degree or level in order to estimate its impact on the skill level of students.

Track and field events are among the activities that have a distinguished position among other types of sports due to their diverse activities. It is called the mother of games because it is the basis on which the rest of the games are built as it develops physical qualities, including strength, speed, stamina, agility, flexibility and others. The weightlifting activity is one of the important activities that significantly improves its level of performance and achievement as a result of hard work to develop the elements of physical fitness and the psychological variables affecting the performance of this event.

The importance of the research lies in the use of a modern teaching strategy, which is the strategy (SQ3R), which keeps pace with developments in the field of teaching and knowing its impact on reducing psychological tension and learning the technical performance the shot put of students.

### **Research Problem:**

By observing the researchers and their follow-up to the lessons and their interviews with experts and teachers in universities, they found that there is a weakness in the technical performance of the effectiveness of pushing the weight. The reason may be due to the lack of use of modern educational technologies in the teaching process, which is clearly reflected in the performance level of educated individuals. As well as the lack of sufficient and complete time during the lessons scheduled for them during the teaching of the effectiveness in question, as

well as the increase in the number of students within the same academic division, as well as the lack of attention to the psychological aspects affecting performance, for example (psychological stress), as well as the need for diversity in the ways and methods of presenting the educational material and conducting the learning process by adding excitement and suspense to get away as much as possible from boredom and routine and in an effort to try to involve students and give them interactive and positive roles in the methods of presenting the stages of effectiveness, therefore, the researchers decided to go into this experiment through the use of educational units based on the five-stage (SQ3R) strategy, the aim of which is to reduce psychological tension and learn the technical performance the shot put for students.

**Research Objectives:**

- Identify the effect of using the (SQ3R) strategy in reducing psychological tension and learning the shot put for students.
- Identifying the significant differences between the experimental and control groups in the results of the post-tests.

Research hypothesis:

- There are significant statistically significant differences between the tribal and remote measurements of the experimental and control groups in reducing psychological tension and learning the shot put for students
- There are significant statistically significant differences in the results of the post-test for the experimental and control groups in reducing psychological tension and learning the shot put for students and in favor of the experimental group.

**Research Fields:**

**The human field:** Students of the first stage in the College of Physical Education and Sports Sciences / University of Kerbala for the academic year ( 2021-2022).

**Time field:** from 8/12/2021 to 1/3/2022.

**Spatial field:** Track and field stadiums in the College of Physical Education and Sports Sciences / Kerbala University.

**Define the terms:**

**(SQ3R) Strategy:** It is "one of the metacognitive strategies called the five-step system of reading developed by Francis Robinson, and it is also called the Robinson strategy". (Abd Aoun and Al-Attar, 2017, p. 55)

**Research Methodology**

The researchers used the experimental method designed by the two equivalent groups (experimental and control) with pre and post tests for its suitability to the nature and problem of the research.

**Community and sample research:**

**Community:** The research community was determined by students of the first stage in the College of Physical Education and Sports Sciences - University of Kerbala, who numbered (94) students.

**The research sample:** The research sample was chosen randomly from the original research community, by lottery method, and the number of (30) students, they were divided into two equal groups, with (15) students for each group, and thus the percentage of the research sample is (31.91%), which is an appropriate proportion to represent the community The search is a true and honest representation. As shown in Table (1).

**Table (1) Show the characterization of the sample:**

N	Groups	Female students Number in each group	Each group used Teaching method
1	Experimental	15	(SQ3R) Strategy
2	Control	15	followed teaching strategy

**The homogeneity of the sample and the equivalence of the two research groups:**

**Sample homogeneity:** The researchers used the coefficient of variation law to establish

homogeneity in the variables (Length, Mass) among the sample members, as shown in Table (2).

**Table (2) shows the mean, standard deviation, Mode and Skew ness the study variables:**

Variables	Unit of measure	Mean	Std. deviation	Mode	Skew ness
Length	Cm	171.56	4.6	171	0.37
Weight	Kg	72.16	6.95	72	0.07

**Equivalence of the two research groups:**

For the purpose of determining the starting point, the researchers found parity between the two groups using the (t) test for

independent samples in the study variables, and Table (3) shows this.

**Table (3)**

Variables	Control group		Experimental group		T value		Sig type
	Mean	Std. deviation	Mean	Std. deviation	Calculated	Tabular	
Psychological tension	136.3	10.18	139.52	9.01	0.9	2.02	Non sig
Shot put	3.28	0.39	3.35	0.37	0.34		Non sig

- The tabular value (t) at the degree of freedom (28) and the level of significance (0.05) is (2.02).

The calculated (t) values for the research variables, we find that they are less than the tabular (t) value of (2.02) at the degree of freedom (28) and the level of significance (0.05), which indicates that there are no significant differences and this means that the two groups are equivalent in the search variables.

**Auxiliary tools and equipment:**

Arab and foreign sources - observation - tests and measurement..

**Auxiliary Tools**

Measuring tape - Medical scale - Chalk - Whistle - Burke - Hand stopwatch number (2) - Scientific calculator - Signs - Men's weight 10.

**Tests used in the research:**

**Psychological tension Scale:** (Jalal, Huda, 2005, pp. 103-105)

The researchers used the psychological stress scale Appendix (1), which was designed and applied to the Iraqi environment (1), and the scale contained (31) items, with (17) negative items and (14) positive items, and the answer to the items

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was with five alternatives which are (applies to me with a degree of Very large, applies to me to a large extent, applies to me to a moderate degree, applies to me to a small degree, does not apply to me at all) The scale scores were (5-4-3-2-1) for the positive items and (1-2-3-4-5) for the negative items, as the highest score for the scale was (155) As for the lowest degree, it is (31) degrees.

### Determination of the thrust efficacy test:

After reviewing several sources for measuring artistic performance, the researchers did not find anything better than depicting the students' artistic performance and subjecting it to a group of assessors as an accurate measure of their technical performance for this event.

As the technical performance of the two research groups was photographed (and they were given two attempts for each student) and they were presented to a group of assessors (\*) with specialization in athletics to evaluate the technical performance of this activity under discussion.

### Experimental Experiment:-

The researchers conducted the exploratory experiment on (15/12/2021) on a sample of (8) students who were not from the research sample and from the community of origin. The researchers aimed from this exploratory experiment to the following:

- Identifying the difficulties that researchers face during the main experiment.
- Knowing the time allotted for conducting the tests.
- Ensure the safety of sports equipment.
- Knowing the requirements and times of educational units.
- Ensure the scientific bases of the tests used.

### Scientific basis tests:

**Validity of the tests:** In extracting the validity of the tests, the researchers relied on the validity of the content by presenting the scale to a group of experts and specialists.

**Reliability:** To calculate the reliability coefficient, the test method is chosen and the test is re-applied. The tests were applied to a sample of (8) students from outside the research sample, and these tests were repeated after (7) days of the first tests and on the same sample.

**Objectivity** The researcher extracted the objectivity of the tests by finding a simple correlation coefficient between the scores of two assessors of the assessors, in addition to the presence of simple, clear and understandable tests far from personal judgments, so the tests are highly objective, as shown in Table (4).

### Table (4) shows the reliability and objectivity coefficient of the tests under study:

N	Tests	Unit of measure	Stability coefficient	Objectivity coefficient
1	Psychological tension	Degree	0.96	0.93
2	Shot put	Degree	0.95	0.89

### **Main experiment:**

#### **Pre-test:**

The pre-tests were conducted on Wednesday, 5/1/2022 on the field and field stadiums in the College of Physical Education and Sports Sciences / University of Kerbala for the variables of the psychological tension scale and the technical performance test for the shot put of the students.

#### **The general framework for implementing the (SQ3R) strategy:**

After the researchers determined all the requirements of the main experiment by defining the tests for the variables investigated, after conducting the exploratory experiment and using them in organizing work and preparing for the main experiment, and before conducting the tribal tests, the researchers gave one introductory unit to each of the two research groups, the purpose of which is to give prior education to students to identify on the nature of the effectiveness to be learned, as well as to achieve the goals that require the researchers to build educational situations that the learners will go through during the implementation of the strategy and study the place of implementation and the tools used within the framework of the method in question, and based on this:

- The researchers prepared the educational units of the strategy for a period of (6) weeks, with one educational unit per week on Wednesdays. Thus, the total units reached (6) educational units, through the first educational unit on (Wednesday) (12/1/2022) until

(Wednesday) (16/2/2022), and benefiting from the sources, references and previous studies..

- For the experimental group that works with the (SQ3R) strategy, which is intended: It is an organized strategy that helps students to read books and scientific texts in an effective manner. It has gained fame, not only for the scientific principles based on it, but the symbol chosen for it will make the process of remembering its steps easy and easy for the learner, as the name of this strategy consists of the first five letter set. For the names of the steps that make up the strategy, my agencies:

Survey = S

Question = Q

Read = R

Recite = R

Review = R

The (SQ3R) strategy is one of the strategies that contribute to increasing the effectiveness of reading, increasing understanding and comprehension, and it is used in short lessons. As for long lessons, it is presented by the teacher for the purpose of developing an advanced model for it so that the learners can comprehend the lesson through the steps that the teacher modeled for them and then the learners apply the strategy after training.

The planning and organization for the implementation of the educational units were as follows:

- 1- Creating the appropriate place for the implementation of the educational unit,



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and the closed hall of the College of Physical Education and Sports Sciences, University of Kerbala, was chosen.

- 2- Preparing the educational unit’s aids and tools, which are (books, pens, laptops, signs, whistle, timer, men’s weight).

As for the control group, it uses the educational units prepared by the subject teacher.

**Post-test:**

After completing the educational units, the post-tests were conducted on Wednesday, 23/2/2022, under the same conditions in which the pre-examinations were conducted,

**Table (5) It shows the significance of the differences between the pre and post-tests of the control group in the psychological tension tests and the Shot put.**

Variables	Pre-test		Post-test		T value		Sig type
	Mean	Std. deviation	Mean	Std. deviation	Calculated	Tabular	
Psychological tension	139.5	9.01	133.13	7.62	2.55	2.14	Sig
Shot put	3.35	0.37	5.71	0.56	11.21		Sig

\* Tabular value (t) at the level of significance (0.05) and the degree of freedom (14) is (2.14).

Table (5) shows the arithmetic means, standard deviations, and the calculated (t) value between the pre and post measurements in the tests under study for the control group. The results showed that all the differences for the tests are significant and in favor of the post-test because the calculated (t) value is greater than the tabular (t) value of (2.14), with a

**Table (6) It shows the significance of the differences between the pre and post-tests of the experimental group in the psychological tension tests and the Shot put.**

Variables	Pre-test		Post-test		T value		Sig type
	Mean	Std. deviation	Mean	Std. deviation	Calculated	Tabular	
Psychological tension	136.3	10.18	126.4	7.88	3.95	2.14	Sig
Shot put	3.28	0.39	7.35	0.47	23.94		Sig

and with the presence of the same auxiliary team.

**Statistical means:**

- Mean.
- Mode.
- Skew ness.
- Percentage.
- T test.

**Presentation, analysis and discussion of results**

**Presentation and analysis of the results of the pre and post tests for the control group in the psychological tension tests and the Shot put**

degree of freedom (14) and below the significance level (0.05), and this indicates a significant difference in favor of the post-test.

**Presenting and analyzing the results of the pre and post-tests of the experimental group in the psychological tension tests and the Shot put.**

\* Tabular value (t) at the level of significance (0.05) and the degree of freedom (14) is (2.14).

Table (6) shows the arithmetic means, standard deviations, and the (t) value calculated between the two tests, pre and post-test, in the tests under study for the experimental group. The results showed that all the differences for the tests are significant and in favor of the post-test because the calculated (t) value is greater than the tabular (t) value of (2.14), with a degree of freedom (14) and below the significance level (0.05), and this indicates a significant difference in favor of the post-test.

#### **Discussing the results of the pre and post tests for the experimental and control groups in the research variables.**

It has been shown through the presentation and analysis of the results in Tables (5,6) that there are significant differences with statistical significance between the tribal and remote tests for the two research groups (control and experimental) in psychological stress tests and learning technical performance for the effectiveness of pushing the weight and in favor of the post tests.

**Control group:** The researchers attribute that the results obtained in their post-tests are due to the method used by the subject teacher in teaching and presenting the educational material, as well as preparing and using them for exercises on the practical side, as well as the performance of students in following the sequence in learning skills, helped in increasing the rate of learning and improving the ability to perform skillfully and obtaining the correct knowledge information, as well as the students' continuity of attendance, non-attendance and

keenness to learn, all of this contributed to the improvement of their level.

**Experimental group:** The researchers attribute that the difference and improvement in the results of the post-tests is due to the use of the strategy of using the strategy (SQ3R), which is one of the strategies of modern metacognition that center around the student, in contrast to the traditional strategies, which provided students with more free learning without the intervention of the teacher except when necessary. The strategy (SQ3R) in their learning of the effectiveness because it included interaction with the written texts and the steps, as each step was complementary to the other, as they performed all the intellectual operations alone, this is the biggest motivator for them that pushed them to perform diligently and actively, as it contributed to the development of skill performance, as it included working according to a standards sheet and forming pairs between students, one of whom was a performer and the other an observer, and then roles are exchanged.

There is also a noticeable development of the psychological stress test in favor of the experimental group, and the researcher attributes this development to the many means and images for students about the shot put and video clips of the players in the case of learning and in the case of real performance of the players in an international competition for this event, as the aim of these means, pictures and videos is to reduce stress Psychological learning



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among learners, increasing motivation and desire, and reducing their state of fear.

**control groups in the psychological tension tests and the shot put,**

### **Presentation and analysis of the results of the post-tests for the experimental and**

**Table (7) shows the significance of the differences between the post tests of the experimental and control groups in the psychological tension tests and the shot put.**

Variables	Experimental		Control		T value		Sig type
	Mean	Std. deviation	Mean	Std. deviation	Calculated	Tabular	
Psychological tension	126.4	7.88	133.13	7.62	2.11	2.04	Sig
Shot put	7.35	0.47	5.71	0.56	12		Sig

\*Table value (t) at significance level (0.05) and degree of freedom (28) is (2.04).

Table (7) shows the arithmetic means, standard deviations, and the calculated (t) value between the post-test in the tests under study for the experimental and control groups, the results showed that all the differences for the tests are significant and in favor of the experimental group because the calculated (t) value is greater than the tabular (t) value of (2.02) and with a degree of freedom (28) and below the level of significance (0.05), and this indicates the existence of a significant difference in favor of the experimental group in all variables are under investigation.

### **Discussing the results of the post-tests for the experimental and control groups:**

Through what was presented in Table (7), it becomes clear that there are significant differences in the post tests of the variables investigated and in favor of the experimental group.

The researchers attribute that the experimental group's superiority over the control group is due to the use of the (SQ3R) strategy, as physical education differs from the rest of the lessons if its educational units contain the theoretical side

and the applied side and cannot be separated, as one of them is complementary to the other. The surrounding stages of technical performance and educational steps, as the (SQ3R) metacognitive strategy contributed to raising the level of skill performance, as researchers believe that the goal of metacognitive strategies is centered around the learner by making him take responsibility for his learning in a way that makes it easier for him to deal with various knowledge, as (Ihsan Muhammad and others) see that modern strategies in teaching It is one of the most important strategies that contribute to increasing cognitive achievement, and therefore it is of great importance in developing teaching methods, simplifying knowledge and forming practical and applied skills for students. In view of the existence of many teaching strategies, and each of them has its objectives, uses, and means of application that differ from one subject to another, so the role of the teacher is very important at the beginning of learning learning strategies, as he should use the appropriate strategies for teaching, explain them, and actually apply them. And then directing the students

to use them in the correct and appropriate manner for the lesson material. (Ihsan Muhammad and others , 2004, p. 35.)

The course of the lesson according to the five steps of this strategy in an intrusive and regular manner, with a logical hierarchy in terms of ease and difficulty, clearly helped students to understand all aspects related to skills, and this strategy took into account the individual differences between students, self-direction in their decision-making, and self-evaluation , and enabling them to apply their knowledge to other situations, as the strategy stimulated the students and developed their ability to criticize in evaluating judgments and issuing them on the skilled text in terms of its great role in developing higher levels of achievement, analysis – synthesis. The evaluation, which developed their ability to extract ideas of the subject, which developed their critical thinking skills, and this was reflected in activating the students' self-learning, each student invests his skills of understanding, knowledge, analysis, installation and evaluation in searching for information and analyzing it within the readable skill text, and this helps him to theoretically absorb the skill . (Kazim, Muhannad Yusuf, 2013,p.42.)

The process of learning for any skill, especially in the sports field, cannot reach the required stage of mastery and desired efficiency only through continuous training and correct practice of performance, and the increase in scientific knowledge and the availability of self-motivation to learn was the main factor in the access of students to the correct mechanism to understand how to

perform the skill. (Dabour and Mersal, 1995, p. 445)

The skill performance has a close and direct relationship with the cognitive aspect of the individual, as the educational process of any performance at the beginning of the early stages of learning must focus on the cognitive aspect of these activities in order to help in gaining performance faster and better than learning them, as learning activities in education Sports is the focus of our work and is only the result of performance repetitions and continuous correction processes that directly affect the behavior that is in constant change and in an educational environment in which social interaction is manifested in the clearest forms. This is what the researcher sought to use the (SQ3R) strategy to learn activities.

As the steps of this strategy start from the educational aspect of the main section and begin with the stage (enabling the student to quickly read the written text of the event, ask questions, in-depth reading, recitation, review or recall, evaluation), as these stages are of great importance in taking a general idea of the effectiveness from Through the questions and answers, and through memorizing the information, storing it and referring to it when needed

-The strategy, including what it provided through work, the control imposed by the assignment paper or the standard, as well as the control of the peer observer and the feedback provided by him and the teacher's control to monitor and provide feedback on an ongoing basis. And create a positive attitude towards the lesson, which inspires in them the desire to perform. In addition to

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pictures, video clips and working within pairs, all of these reasons called for reducing psychological tension among students because every student has the desire and motivation to learn and stay away from cases of fear and hesitation when performing this activity because he touched on all the vocabulary and stages of this activity and this is due to the steps of the (SQ3R) strategy that She took care of all these things.

### Conclusions and recommendations:

#### Conclusions:

- 1- The tired strategy and the method prepared by the subject teacher had a positive effect in the psychological tension tests and learning the technical performance of the shot put for students.
- 2- The results showed that the students of the experimental group (SQ3R) strategy outperformed the students of the control group (the method prepared by the subject teacher in psychological tension tests and learning the technical performance the shot put for students.

#### Recommendations:

- 1- Emphasis on the use of (SQ3R strategy) in learning the rest of the athletics events because of their good results.
- 2- Focusing on theoretical concepts and linking them to the practical side during the implementation of the lesson.
- 3- Conducting educational courses and holding lectures and seminars for physical education teachers and directing them to the need for diversification and the use of meta-cognitive strategies as

recent studies have proven their effectiveness in learning. .

- 4- Conducting similar studies in other activities and games using the (SQ3R strategy) for different age and school stages and for both sexes.

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