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The Effect of the Deans Model on Mental Motivation and Learning the Skills of Receiving Transmissions and Preparing Volleyball

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Abstract. *Identify the effect of the Deans model on improving students' mental motivation compared to students who learn by the methods used, measuring the extent to which the Deniz model affects learning the skills of preparation and receiving volleyball transmissions. The researchers used the experimental method, and the research sample included students of the College of Physical Education and Sports Sciences at the University of Anbar for the academic year 2024/2025, numbering (40) students; the following research tests were used for the purpose of achieving the research objectives Test the skill of receiving the transmission of the arms from the bottom, testing the skill of preparation from the top with the fingers, mental motivation test The skill tests and mental motivation were conducted after the research sample was completed after it completed the implementation of the program, and at the same time, the method and conditions in which the pre-tests were conducted. The following statistical parameters were used. Calculates both the percentage values and the mean. And standard deviation. Torsion coefficient and T-test for correlated samples. Through the analysis of the evidence and its statistical processing, it was found that the values of (T) calculated for the test of the skill of receiving the transmitter, preparation, and mental motivation are all significant values when compared to the tabular value of (2.02) at the degree of freedom (39) and the level of significance (0.05). The research results showed that applying the Deniz model had a significant positive effect on mental motivation. It increased students' motivation and self-motivation, which contributed to improved mental performance and concentration during performance. The study also showed that using the Deniz model in training had a major role in improving the skills of receiving transmissions and preparation in volleyball. The ability to receive transmissions with greater accuracy has improved, allowing the ball to be directed more effectively for setup.*

Keywords: *Deans Model, Mental Motivation, Transmission-Reception Skill, Preparation Skill, Volleyball.*

1. INTRODUCTION

Sport is an ideal field for testing educational theories and motivational models. Volleyball is not just a game, but a combination of physical fitness, fine motor skills, and high mental motivation, as it has now become in many countries of the world occupies the first ranks in terms of practicing and attracting a large number of players and viewers because of its fast rhythms, follow-up, and continuous exchanges between offensive and defensive skills because of the nature of these nature characterized by the accuracy and speed of technical performance, and in the game of volleyball are the skills of preparation and reception of the transmitter One of the main pillars of achieving outstanding performance, and recent years have witnessed important changes in the teaching of physical education in general and the teaching of volleyball in particular (Da Matta, 2004).

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The researchers see the Deans model, which fits its steps with the philosophy of teaching physical education in terms of designing the educational environment and diversifying activities and focusing on the activity of the learner and positive in the light of teaching methods and educational activities that focus on the learner's practice of mental processes and his positivity in educational situations and evaluating his performance, it is no longer acceptable to use only the use of stereotypical methods of learning and teaching, but rather trying to use all modern and innovative methods and employ them in the development of his thinking, knowledge, skills and scientific trends. His attitude toward education is mathematical, and one of these methods is the Deniz model. Where studies, including a study (Issa, 2022), "have proven that the use of this model led to students' learning and increased the turnout towards performance, which positively affected the learning of skills", as the educational models in this model proved a major role in improving sports performance, which in turn focuses on active learning, interaction, and the direct link between mental thinking and actual practice. This research aims to highlight the impact of the Deans model in stimulating the mathematical mindset and developing the skills of receiving transmissions and preparation in volleyball (Neutzling, 2012).

Volleyball has been one of the most popular and widespread sports globally since the beginning of the century due to its unique technical skills and non-violent tactical strategies. This sport has become an essential part of the vocabulary of educational institutions and is practiced by male and female students alike. Students must master key skills to ensure the ability to perform roles effectively on the field.

Thus, the skills of receiving transmissions and preparation are considered basic skills in the game of volleyball, as their mastery greatly affects the players' performance and the team's success. Through the experience and familiarity with the educational units of the second stage students in the College of Physical Education and Sports Sciences at the University of Anbar, they noticed that many learners face difficulty in learning these skills effectively, especially when the mental motivation necessary for learning is weak. In light of this, the Dean model emerges as one of the modern educational models that aims to enhance mental motivation and motivate learners through interactive and innovative educational strategies. Therefore, the research problem stems from the need to explore the effectiveness of applying this model in improving students' mental motivation and learning the preparation and receiving skills of students in volleyball.

2. RESEARCH OBJECTIVES

a. Identify the effect of the Dean's model on improving students' mental motivation compared to students who learn in the ways used.
b. Measuring the impact of the Deniz model on learning the skills of setting and receiving volleyball transmissions.

3. RESEARCH HYPOTHESES

a. There is a statistically significant positive effect of using the Deans model on improving students' mental motivation in volleyball.
b. The use of the Deans model effectively improves students' transmitter reception and preparation skills in volleyball.

Define Terms

Deans model: It is a set of activities and procedures performed by the teacher by allowing students to play freely and then directing them to search for common properties of mathematical skills, then moving them to represent the skill in a new situation and training them to code the mathematical skill and end in the use of the acquired mathematical skill (Fathi, 2018).

Mental motivation: It is an internal state that stimulates the student's mind and directs his mental focus toward solving the problems facing him in different and creative ways and for the demand for learning using higher mental processes and access to cognitive integration, curiosity, mental openness and curiosity to be able to reach solutions to problems creatively and unconventionally (Hassan, 2020).

4. MATERIALS AND METHODS

Study Design:

The researchers used the experimental method, which was defined as "the approach in which we treat and control an independent variable to see its effect on a dependent variable while observing the resulting changes and interpreting them, whether the experiment includes an independent variable and a dependent variable or more than one independent variable or more than a dependent variable"(O. A. Ali et al., 2022; Magdy, 2019), to suit and nature of the research.

Participants:

The research sample included (40) students of the College of Physical Education and Sports Sciences, second stage, division (B) at the University of Anbar for the academic year 2024/2025.

Methods, Tools, And Devices Used in Research

Means of gathering information

a. Testing & Measurement
b. Questionnaire

Tools and equipment used in research

a. Stadium of the College of Physical Education and Sports Sciences at the University of Anbar
b. Legal volleyballs number (15) type molten
c. Tape measure (50) m
d. Beeper number (2)
e. 1 DELL LAPTOP
f. Casio stopwatch (2)
g. Japanese-made Nikon camera

Tests used in research.

The researcher adopted the vocabulary of volleyball and approved it within the annual curriculum in the college issued by the Ministry of Higher Education and Scientific Research and has determined the skills of receiving the transmission and preparation, which are taught during the second semester.

First, Test the skill of receiving transmitters for the arms from below (Ban, A. R. I., & Tariq, 2011)**.**

Objective of the test: Measuring the skill of receiving the transmit.

Tools:

a. Legal volleyball court and net with legal height for men and collars number (2) diameter (1 m) each in the center (5) and center (1) and away (2.5 m) from the final line
b. The front area is divided by three squares, and the length of each side (3 m)

Performance:

The tester stands in the center of (5) inside the ring and receives the ball with the arms from below, received from the teacher, and directs the ball to square (1) for five attempts as well as for five attempts to square (2) and then to square (3) for five other

attempts. Repeats the performance with the same number of attempts from center (1) and from inside the ring

Performance Conditions

a. Total attempts (30) attempts from each collar (15) attempts
b. Perform all attempts and receive with hands from below

Scoring Calculation

a. (Three degrees) The ball falls inside the square.
b. (Two degrees) The ball falls outside and near the box.
c. (one degree) The ball falls outside the box but inside the field.
d. Except for the above, the laboratory gets zero grades, and the maximum score is (90) degrees.

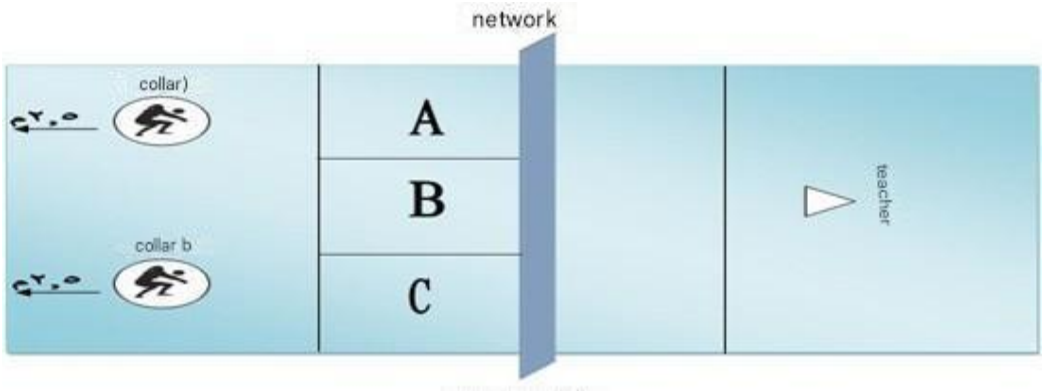

Figure 1. Shows how to divide the pitch in the transmitter reception skill test

Second: Test the skill of preparation from the top with fingers(S. A. T. Ali, 2013)**.**

Purpose of the test: Measuring the readiness of the laboratory in the skill of numbers near the network. Necessary tools: volleyball court with a net of legal height, volleyballs, standing and high jump with a height of two common semicircles in the center (center in the middle of the midline) so that the half line of the large circle is 180 cm and the radius of the inner circle is 60 cm. The high jump stands are placed on one-line parallel to the grid and at a distance of 240 cm from the center line, and the distance between posts three and the rope points on the pillars at a height of 240 cm from the ground.

Performance specifications: The coach (T) stands in the place specified for him in front of the posts and to the side slightly and is holding the ball, and he has to throw the ball (in the manner of correction used in basketball) to the laboratory (X), which is standing in place.

Test instructions:

a. The place where the teacher stands (T) is shown in the figure in front of the caretakers, with his back towards the net.
b. The place of the laboratory (X) is 480 cm from the center line as well as 240 cm from those in charge of facing the network. And facing the teacher. When the ball reaches the laboratory, he must pass it from the top of the fingers, and then the ball passes over the rope to fall into one of the half circles (between the posts and the net) and repeat it ten times.

Test Management:

a. Registered: The call to the names first and record the results of the ten attempts.
b. Arbitrator: stands on the other side to monitor the implementation of the pass and the place of its fall.

Sign up:

a. Any error from the laboratory in performance calculates the attempt and gets zero from it.
b. The tester gets (10) degrees if the attempt is correct and the ball falls inside the minor semicircle
c. The tester gets (5) degrees if the attempt is correct and the ball falls within the great semicircle.
d. The tester gets (2) a score if the attempt is correct and the ball falls outside the two circles but inside the half of the field where the test is performed
e. Except for the above, the lab gets zero in the attempt.
f. The final score represents the total score of the laboratory on the test in the attempts of the tenth of the final score is 100 points.

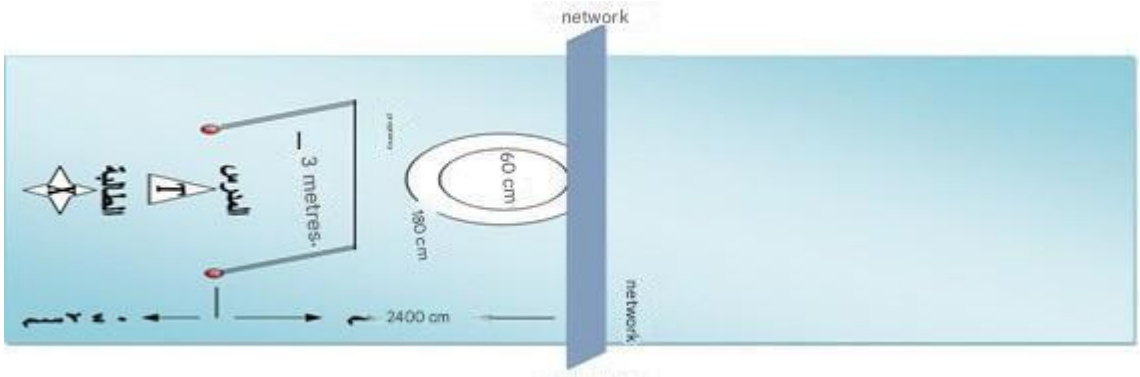

Figure 2. shows how to divide the field in the preparation skill test from the top.

Foundations and scientific coefficients of tests: -

a. Authenticity of the tests:

The truthfulness of tests means that "one of the most important characteristics compared to other characteristics is that it relates to the goal or objectives that the measurement tool is expected to achieve, and to the extent to which it relates to the type and importance of the decision that will be made accordingly(O. A. Ali et al., 2024; Saeed, J. A.-A., & Sundus, 2014). In addition to the above and to ensure that the degrees of application on the survey sample specified in this research, which numbered (10) students who were statistically excluded from the sample, the researcher has adopted self-honesty by the root of the stability coefficient for each of the three tests as shown in Table (1)

b. Stability of tests:

Stability is the extent of accuracy, mastery or consistency with which the test measures the phenomenon for which it was developed, and stability is attributed to the consistency of repeated measurement on the sample "(O. A. Ali et al., 2022; Mohamed, H. A., & Mohamed, 2008). Thus, the static test is the one that gives the same results if it is returned in the same conditions during a period that does not allow learning. The researcher verified the stability of the three skills tests under research by testing and re-testing on the exploratory sample of (10) students who were statistically excluded, as it was applied after (7) days. The results of the two applications were processed with the simple correlation coefficient Pearson, as shown in Table (1).

c. Objectivity of the tests:

Both Amin and Raja remind us that objectivity "means that the subjective aspect of the evaluator does not interfere either in the estimation or interpretation of the degree, and for objectivity to be achieved, the procedures should be the same in terms of instructions, the method of response time, the method of correction be the same, and that everyone understands it in one sense" (Saeed et al., 2024; Zamin Zahho, Ali, M. S., & Raja, 2012).

Thus, the researcher applied basic skills tests on (10) students who were statistically excluded specified for this procedure, and the adoption of the grades of two arbitrators and the results of the student's grades were processed among two arbitrators with the simple correlation coefficient Pearson. As shown in Table (1)

Table 1. Shows the scientific foundations of the study tests

Test Name	Objectivity coefficient between two arbitrators (objectivity)		Stability by test and retest		Self-honesty (empirical)
	Pearson's coefficient	Error level	Pearson's coefficient	Error level	
The skill of receiving transmissions from below in volleyball	0.955	0.000	0.947	0.003	0.973
Top-up skill in volleyball	0.939	0.002	0.951	0.000	0.975

n Reconnaissance = 6 degrees of freedom (n-2)

The results of Table (1) show that the tests used achieved high coefficients to accept their scientific foundations according to the determinants of measurement and evaluation in physical education sciences.

Nabil Gomaa states in the interpretation of the correlation coefficient, "from (0.00-less than 0.30) is very low and from (0.70-less than 0.90) it is high" (Nabil, 2010; Omar, A.F., Razzaq, N.K.A., Jabbar, 2018).

Third: To test mental motivation. (Appendix 1)

Field research procedures.

Pre-tests.

The researchers conducted the tribal skill tests and mental motivation for the research sample on 2/3/2024 at exactly ten o'clock in the morning in the physical education hall at the University of Anbar, and the researchers have installed the conditions for the tests in terms of place, time, test method and assistant work team. To achieve the same conditions as possible when conducting post-tests of the research sample(Hammood et al., 2025).

Preparation of the curriculum for the Deniz model:

The researchers prepared educational units in the Deniz model in learning my skills (preparation and receiving the transmitter), which consists of three stages in the main part of the lesson, where the application of the first stage in the educational part of the lesson and lasted (15) minutes, and the second and third stage, which is in the main part. The educational part took (20) minutes, and the applied part (40) minutes. In comparison, the final part will take (5) minutes, as this curriculum contained (12) educational units for the experimental research group that is taught according to this model, taking into account in

the preparation of its exercises the students' physical and skill abilities as well as the availability of capabilities and requirements for the implementation of this model.

Post-tests.

The researchers conducted the dimensional skill and mental motivation tests for the research sample after it completed the program's implementation on 2/5/2024 and, simultaneously, the method and conditions in which it conducted the pre-tests.

Statistical Methods:

The following statistical parameters were used. (Ahmad, 2000; O. A. Ali et al., 2022). To calculate each of the percentage values,

a. arithmetic mean.
b. standard deviation.
c. torsion coefficient.
d. T-test for correlated samples.

5. RESULTS

Present and analyze the results of the differences between pre- and post-tests, skills, and mental motivation.

Table 2. The arithmetic mean, standard deviation, mean difference, standard deviation, calculated (T) values, and the significance of the difference between the results of the pre-and post-tests of the research variables of the experimental group>

Variables	Unit of measurement	Pre-test		Post-Test		Teams of the media	Standard deviation difference	Calculated value(s)	Significance of differences
		M	SD	M	SD				
The skill of receiving transmissions from below in volleyball	Degree	61	3.56	78	3.39	17	13.5	7.98	Moral
Top-up skill in volleyball	Degree	62.11	3.1	77	2.93	14.89	13.9	6.77	Moral
Mental motivation test	Degree	25.31	5.44	29.97	6.1	4.66	3.61	8.17	Moral

Tabular value (T) (2.02) at the degree of freedom (39) and significance level (0.05). Table (2) shows us that the values of (T) calculated for the test of the skill of receiving the transmitter, preparation, and mental motivation are all significant values when compared

to the tabular value of (2.02) at the degree of freedom (39) and the level of significance (0.05).

6. DISCUSSION

The researchers attribute this improvement to the mental exercises provided by the Deniz model, which shows that students can improve their ability to deal with psychological challenges, contributing to increased self-confidence during athletic performance. Deniz's model refers to an approach that cares about the psychological aspects of players by motivating them and directing them toward improving their athletic performance. Studies show that mental stimulation is one of the main factors contributing to improving Riyadh's performance. (Abdullah, 2018).

The noticeable improvement in mental processes of the research sample is due to Deniz's model, which worked to reduce the feelings of anxiety that students may face during performance, as they are trained to control their thoughts and improve their psychological flexibility(Mosleh, H.H., Omar, A.F., Razzaq, 2018; Sabbar et al., 2023).

Transmitting reception and preparation skills are key skills that determine a team's volleyball performance. The application of the Deniz model contributed significantly to developing these two skills by improving the psychological aspects of students, such as confidence and concentration. The results showed that applying mental training techniques to players in volleyball enhances the accuracy of receiving the transmission. Deniz's model helped Hussein's rapid response through mental training, as players learn how to react quickly to serve and analyze the trajectory more accurately, leading to better reception (Abu Zeid, 2017; AL-Azawi et al., 2022).

Mental training also enhances communication between the mind and the body, improving technical performance through accurate ball preparation for teammates. When players are in good psychological shape, feel motivated, and can focus on their transmission and preparation skills, they become more accurate and effective (Al-Hassan, 2019).

7. CONCLUSION

a. Research results showed that applying the Deniz model significantly positively affected mental motivation. It increased students' motivation and self-motivation, which contributed to improved mental performance and concentration during performance.
b. The study showed that using the Deniz model in training had a major role in improving the skills of receiving transmissions and preparation in volleyball. The ability to receive

more accurate transmissions has improved, allowing the ball to be directed more effectively for setup.

c. In addition, the model helped to enhance the skill of preparation, as the interaction between players improved and accuracy in sending the ball to attackers increased.

Considering the findings, the researchers recommend the following:

a. Continued application of the Deans model.
b. Use psychological training programs parallel to physical training.
c. Cooperation between coaches and specialists in sports psychology.

Conflict of Interest:

The authors declare that there are no conflicts of interest.

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