

# Indian Journal of Modern Research and Reviews

This Journal is a member of the 'Committee on Publication Ethics'

Online ISSN:2584-184X



## Research Paper

# The Effect of The Entwistle Model on Teaching Students to Participate in the Abilities of Serving and Receiving Volleyball Serving

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DOI: <https://doi.org/10.5281/zenodo.15115436>

ABSTRACT	Manuscript Info.
<p>The investigation employs the Entwistle model and identifies its contribution to the learning of serving and receiving in volleyball. The researcher employed a experimental design that employed a similar group design to accommodate the nature of the research. The community of research included second year students at Al-Mustaqbal University - College of Physical Education and Sports Sciences for the academic year (2025-2024). The investigation's sample included (20) students who were selected by lottery from sections (a-b). The sample was divided into two categories: experimental and control, each containing (10) students, which represents (33.10) percent of the original population. The length of the educational program was (8) weeks, with (1) educational session per week. After implementing the educational program, the researchers came to several conclusions, the most significant of which is that the Entwistle model has a positive impact on the learning units over the course of (8) weeks, and is regularly effective in teaching the skills of serving and receiving in volleyball. The researcher suggested that the use of models is necessary in the educational process, including the Entwistle model to determine the degree to which the participant has learned the basic skills of volleyball, because of its effectiveness in improving the performance of serving and receiving the serve in the sport.</p>	<ul style="list-style-type: none"> <li>✓ ISSN No: 2584-184X</li> <li>✓ Received: 29-01-2025</li> <li>✓ Accepted: 27-02-2025</li> <li>✓ Published: 31-03-2025</li> <li>✓ MRR:3(3):2025;31-35</li> <li>✓ ©2025, All Rights Reserved.</li> <li>✓ Peer Review Process: Yes</li> <li>✓ Plagiarism Checked: Yes</li> </ul> <p><b>How To Cite</b></p> <p>Ali Mazhar Hassan, Lina Mohi Hadi, Ali Yousef Hadi. The effect of the Entwistle model on teaching students to participate in the abilities of serving and receiving volleyball serving. Indian J Mod Res Rev. 2025;3(3):31-35.</p>

**KEYWORDS:** Entwistle model, sending skill and receiving skill.

## 1. INTRODUCTION

As a result of the developments witnessed in all fields, including mathematics, in terms of both quantity and quality of knowledge and scientific facts, the development of knowledge has become multifaceted, with various methods and strategies becoming available. This has prompted an increase in the demand for cognitive sciences, which has led to the design of new educational programs that are more relevant to the nature and progression of this knowledge. The popular trend has been for scientists and teachers to assume the role of designing modern

models that are in constant communication with all parties involved. Modern education is moving away from the established paradigm, making these teaching models and designs more appropriate to the times and addressing knowledge. This has imposed the need for more advanced educational models and designs, moving away from the traditional approach based on the idea that teaching is a one-sided position, with the teacher alone as the sole source of knowledge. Conversely, recent research and studies emphasize the importance of adopting an

interactive, participatory model that engages the teacher, the learner, and the curriculum in an integrated system that contributes to the development of the educational process, which is the goal of every educator seeking to find innovative solutions to achieve academic excellence. (9:43), and through the course of life, the success of the educational process faces great difficulty if the educational model that runs the educational process correctly is not available, as the more the model is appropriate and suitable for the educational situation and the maturity and abilities of the students, the more profound and beneficial the educational process will be (2) (1), which has prompted researchers and educators interested in teaching affairs to emphasize the adoption of modern educational models that focus on the student and make him the focus of the learning and teaching process, as one of the effective strategies in this field.

The Entwistle model (derived from the cognitive constructivist theory) is based on the association between the individual's learning style and the degree to which they learn. The model comprises three different orientations that are associated with different goals, which results in specific approaches that the individual employs in different learning situations during the process of learning. This results in different levels of comprehension (4:530). It is achieved through shared learning patterns between the subject teacher and the recipient alike, and encouraging students to participate in situations during the explanation to consolidate scientific concepts among students through brainstorming (10:97). Volleyball is one of the organized team games characterized by rapidly changing and sudden situations and diversity in the motor performance of different skills such as serving and receiving, serving and preparing. Since the skills of serving and receiving the serve are defensive skills that students must master to reach the required skill performance, this can only be achieved through estimating the situation and appropriate interaction to make the right decision during the implementation of game situations and controlling them. In addition, some skills within the curriculum are presented in a traditional way, which leads to weakness in achieving goals. Behavioral in the lesson, and students' ignorance of many concepts and the importance of this skill in the game, leads to weakness in their level and achieving the desired goal. (2:3) The problem of the research lies in the researcher's review of many studies and research on how to teach the basic skills related to volleyball. He found the absence of modern strategies in education and the reliance on familiar educational methods, which may lead to fluctuations in learning basic skills among students and difficulty in achieving mastery of skills, which is reflected in the effectiveness of performance. Through interest and research on a model through which students can overcome the difficulties they may face while learning basic skills, the significance of the research is apparent from studying the association between Entwistle's model and the learning of serve and receive in volleyball skills.

## 2. RESEARCH OBJECTIVES

1. Develop instructional units based on the ENTUSTL model for the performance of volleyball serving and receiving skills.
2. Identify the effect of the ENTUSTL model on the performance of volleyball serving and receiving skills.

### Research areas

- **Human scope:** Second-year students in the College of Physical Education and Sports Sciences at Al-Mustaqbal University.
- **Temporal scope:** From October 4, 2020, to December 4, 2020.
- **Spatial scope:** The indoor hall at the College of Physical Education and Sports Sciences at Al-Mustaqbal University.

## 3. RESEARCH METHODOLOGY

**Field Research Procedures:** The researcher employed the experimental method to conform to the nature of the research by creating two groups, the control group and the experimental group, both of which had pre and post-tests. In this type, the researchers incorporated two groups that were equivalent about all variables. One group participated in the experiment, while another group simply remained as it was. The discrepancy in performance was then noted (1) (27).

**Research the Community and Sample:** The community's research was conducted with a purpose, using a portion of the second-year students in the College of Physical Education and Sports Sciences at Future University during the academic year (2-23-2024). The total community's members were split into two groups: the first had 60 students, and the second had 44. Classes (a-b) were selected by drawing lots, with Class (b) representing the experimental group and Class (a) representing the control group. The number of students in Class (a) increased to 10 students, and the number of students in Class (b) increased to 10 students. The total number of the sample members was 20 students, and the percentage of the research sample that was originally part of the research community was 20). (33.10) is a respectable figure that represents the research community. The researcher also conducted a uniformity test among the participants in the study and found that the participants had a uniform distribution of height, weight, and age. The value of the skewness coefficient was between ( $\pm 1$ ), which indicates the uniformity of the sample and its average distribution, as shown in Table (1).

**Table 1:** Indicates the uniformity of the sample members.

Variables	Units	Mean	STD	Skewness
Height	Cm	175.2	54.5	0.77
Weight	Kg	73.3	5.33	0.33
Age	Year	22.4	1.07	0.78

**Table 2.** Shows the average, standard deviation, and calculated and tabulated t values for the pre-tests to prove the research's equivalence

Variables	Experimental group		Control group		Calculated (T)	(T) Tabular	Significance
	Mean	STD	Mean	STD			
Sending skill	4	0.81	3.5	0.70	1.40	2.10	No sig.
Receiving skill	3.7	1.33	4.2	0.78	0.97	2.10	No sig.

**Research Methods, Devices, and Tools:**

- References and Arabic and International Sources.
- Internet.
- Forms for completing the results.
- Casio (Japanese) stopwatch.
- Lenovo laptop.
- American-made scale.
- Volleyballs (8).
- Volleyball court.
- Measuring tape.
- Colored chalk.
- Adhesive tape.
- One whistle.

**Field Research Procedures**

**Research-Based Tests**

- Technical Performance Test for the Transmission Skill (122:6).
- Technical Performance Skill Test (Receiving and Transmitting) (212:6)

**Exploratory Experiment**

To recognize the troubles and obstacles that could come with implementing the main experiment, the researcher conducted an exploratory experiment that is considered practical training for the researcher in order to recognize the negative and positive aspects of the test and avoid them (11, p. (14)). As a result, the researcher initiated the experimental exploration of (5) students that were not members of the original community. The experiment took place on October 4th, 2024 at 10am. Its objective was to follow up on previous steps:

- To inform the support team and their knowledge of the test performance.
- To ensure the ease of applying the test and its suitability for the sample level.
- To identify any problems that might arise and avoid them to avoid errors and ensure the validity of the devices and tools used in the test.

**Field Research Procedures**

**Pre-tests:** Pre-tests were conducted on the research sample in the classroom. The session was closed at the College of Physical Education and Sports Sciences at Al-Mustaqbal University on October 8th, 2024. The researcher created the conditions and method of conducting the tests that would ensure the greatest possible degree of similarity when conducting the post-tests.

**Educational Program**

After reviewing the sources, the researcher prepared the educational units using the Entwistle model. The implementation period was (8) weeks, from April 10, 2023, to December 4, 2023, with (1) educational unit per week, which was on Monday. Thus, the number of educational units reached (8). The exercises were conducted in the main section of the educational unit, with the duration of each educational unit being (90) minutes, and the duration of the unit's exercises was (45) minutes in the main and applied sections.

**Post-Tests**

After implementing the main experiment within the specified time period, the researchers conducted the post-tests on Monday, December 4, 2023, using the same method and conditions as the pre-tests.

**Statistical Methods**

The researcher used the ready-made statistical package (SPSS) to extract the results.

**4. RESULTS**

**Analysis and Discussion of Research Results Presentation and Discussion of Results**

**Table 3:** Indicates the average, standard deviation, and the calculated and tabulated t values for the control group prior to and following the tests

Variables	N	Pretest		Posttest		Calculated (T)*	(T) Tabular	Significance
		Mean	Std	Mean	Std			
Sending skill	10	3.5	0.70	5.3	0.82	8.19	2.26	Sig.
Receiving skill	10	4.2	0.78	5.8	0.78	2.78	2.26	Sig.

\*The calculated t-value is below the level of significance (0.05) and the number of degrees of freedom (9).

The researcher attributes the reason to the school's adherence to the traditional method it follows, as it does not allow students to play a role in the educational process, but rather merely to be recipients at all stages of the lesson. Thus, the school is responsible for all decisions. "Students do not respond to the learning process in the same or single method, sometimes multiple. Therefore, learning methods must be shaped, without favoring one method over another (5) 92-93). We also note from Table (4) for the pre- and post-tests for the experimental group that the significance of the differences in the post-test is evident, as demonstrated by the means, standard deviations, and the calculated and tabulated t-value for the experimental group.

**Table 4:** Indicates the average, standard deviation, and the calculated and tabulated t values for the experimental group prior to and following the tests

Variables	N	Pretest		Posttest		Calculated (T)*	(T) Tabular	Significance
		Mean	Std	Mean	Std			
Sending skill	10	10	4	0.81	7.1	0.87	19.35	Sig.
Receiving skill	10	10	3.7	1.33	7.3	1.15	16.53	Sig.

\*The calculated t-value is below the level of significance (0.05) and the number of degrees of freedom (9).

We notice by looking at Table (5), which shows us the results of the post-test for the experimental and control groups,

that there are significant differences in favor of the experimental group.

**Table 5:** Indicates the average, standard deviation, and the calculated and tabulated t-test values for the control and experimental groups in the following tests

Variables	N	Control group		Experimental group		Calculated (T)*	(T) Tabular	Significance
		Mean	Std	Mean	Std			
Sending skill	20	5.3	0.82	7.1	0.87	4.15	2.10	Sig.
Receiving skill	20	5.8	0.97	7.3	1.15	3.23	2.10	Sig.

## 5. DISCUSSIONS

When observing Tables (3), (4) and (5) regarding the test results for the experimental and control groups in the tests, we see that both groups have developed, but the development was greater for the experimental group, reaching (49.32%), whose students were taught according to the Entwistle model. The researcher explains the result of this development by saying that the use of the Entwistle model in teaching the skill of sending and receiving the serve in volleyball has led to improving the cognitive component of the students in the experimental group, as it has increased the students' orientation towards educational situations and developed their motivation towards learning and their habits and skills that they use during feedback. It has also improved the methods of the students and their best choice in learning and the previous information that the student possessed towards the situations that occurred, which has produced progress in the level of performance of the skills of sending and receiving the serve. It also works to attract the students' attention through their active participation in the lesson. In addition, teaching according to the Entwistle model is characterized by seriousness and vitality to present the material in a comprehensive and sequential manner and the clarity of the objectives and their definition in a correct behavioral manner that can be applied, because students at this stage love everything. Something new, diverse, lively and active, including the educational tools used in teaching according to this model. This is what the two researchers (Sayya Sami and Lama Samir) (19:8) agreed upon, that learners become able to concentrate when they possess determination and perseverance in performing the skill, which leads to the learner's tendency to increase his information and knowledge of the skill and use information searching as a strategy to solve problems. It is one of the main pillars of the Tostle model. The model also developed a group of aspects and considers the learning environment and the method in which learning takes place, which includes many aspects such as assessment procedures, the nature of the educational content and its requirements, in addition to the feedback provided to students and the design of the educational situation in general. This is consistent with what the designer of this model stated and advocated (7:5). He pointed

out that it is not possible to separate the study trends and learning approaches, as the methods adopted by the student in processing information and the methods he prefers are closely related to their motivations and tendencies. Therefore, we can say that the multiplicity of learning strategies and processing methods is due to the nature of the learning environment and its directions. In addition, teaching according to this model contributes to providing corrective feedback that helps students develop their abilities. The research of the two scholars (Zeina Hassan and Najla Abbas (19:8)) concurred, as they documented that the utilization of feedback in the correction of student's errors while applying the skill had an effect on improving the performance of students and learning a few fundamental abilities in volleyball. This is what Wageeh Mahjoub admitted, The more variables there are in the form of exercise, the greater the changes in the type of learning.

## 6. CONCLUSIONS

1. The experimental group, which used the Entwistle Model strategy, outperformed the control group, which used the traditional teaching method. Continued use of the Entwistle Model in learning units over a period of (8 weeks on a regular basis is effective in teaching some basic volleyball skills (the skills of serving and receiving the serve). The Entwistle Model places students at the center of the learning process and emphasizes their active role, as it involves conducting a variety of activities, which has contributed to increasing students' cognitive interconnectedness. Teaching according to the Entwistle Model has proven to have an effective impact in increasing the cognitive mental processes used in learning by linking the learning process to the foundations and systems of representing and processing information and its efficiency, by focusing on internal cognitive processes, including individual control and their role in the efficiency and representation of this information.

## 7. RECOMMENDATIONS

1. Volleyball teachers should adopt strategies based on modern teaching models, such as the Entwistle model, which enhance students' thinking and knowledge. These models

motivate students to develop their interests and attitudes toward learning the subject, helping them transcend traditional teaching methods that focus solely on memorization and indoctrination.

2. Conduct a study similar to the current one at other levels and in different activities (basketball, handball, and football) to examine the effect of the Entwistle model on the performance of the skills of serving and receiving the serve (in volleyball).
3. Conduct similar studies on different age groups.

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