



## Effect of the Reciprocal Style on the Performance Skills of Certain Movements on the Balance Beam

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### Abstract

This study aimed to identify the effect of the reciprocal style on the performance skills of forward rolling and leap, performed by the faculty of physical education female students on the balance beam. The sample consisted of (58) students distributed over two equal groups. The first experimental group students were taught by the traditional teaching style, whereas the second experimental group students were taught by the reciprocal teaching style, during the second semester of the academic year 2017/2018. The means, standard deviations, and T-test were calculated to determine the differences between the groups. The results showed statistically significant differences at ( $\alpha \leq 0.05$ ) level between the post measurements of the two groups in the skill performance level in favor of the experimental group. The researcher recommended the use of reciprocal teaching style in teaching skills as well as use modern teaching methods on the different activities.

**Keywords:** Reciprocal teaching style; Skill performance; Balance beam.



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### 1. Introduction

Physical education concept is no longer limited to the alternative activities; rather, it is a measurement of the civilizations progress. Physical education witnessed advances and improvements in many aspects, particularly in the teaching process, methods and applied ways in teaching physical education. In addition, the learning process is no longer confined by giving the student information and experiences. More importantly, work on encouragement and support to enable him have an access of the envisaged information and experiences by himself, be an effective participant, and make him the focus of the teaching process. As such, the physical education teacher must be competent in the modern skills and diversified teaching methods. In this concern, [Bali and Souiss \(2015\)](#) asserted that the traditional styles are not suitable for the needs of the current age; and that the purpose of teaching must be organizing the education status and increasing teaching opportunities.

[Al-Zuhairi \(2007\)](#), maintained that the teaching process requires the form the teachers more knowledge and acquaintance in selecting the best teaching styles, which facilitate the learning process. They should also apply the mechanisms that fit the modern age, which focus on the teacher's self; and avoid the traditional styles where the learner is the "recipient".

[Abed Al Kareem \(1994\)](#), defined teaching styles as a set of relationships arise between the teacher and learner, which help the latter grow, develop and gain skills in the physical activities. She indicated that the efficient teacher is the one who uses teaching styles where the learner is positive, effective, and active. [Mohammad and Abbas \(2016\)](#) showed that the teaching process requires teachers have more knowledge and readings about the best teaching styles, whether they are direct or indirect, to facilitate the learning process. They indicated that the good and follower-up teacher is the one who provides the new thing, and makes the learner's situation positive and effective throughout the lesson. Moreover, they showed that the physical education teaching methods had vastly developed and diversified, which enable the teachers use more than one method to convey the information and ideas to the learners, and address the individual differences through the best methods.

[Abed Al Kareem \(1994\)](#) maintained that the following things which were importance for increasing the teaching effectiveness such as: work toward preparing situations that develop ability of self-learning; respect of the student's personality and confidence in his ability; work toward developing him to accept responsibility in learning and teaching, and allowing the student a flexible interaction with both the educational material and the teacher.

[Abed Al Jabbar \(2002\)](#), emphasized the importance of the teaching methods that develop the student's physical, psychological and social aspects. He also stressed on their importance in building and preparing the student in a manner suitable for the age requirements, and taking into account the psychological factors and individual differences among the students, which influence the learning process.

[Al- Hamad and Al-Sayyid \(2005\)](#), underlined the necessity of giving up the teaching method that depends on one style for all the lessons. Every lesson is performed in a manner different from the other lesson. To increase

teaching effectiveness, attention should be placed on ways to develop the ability for self-learning, and how the teacher could be an encourager and supporter of the students' innovations, and work on stimulating their desire to gain experience.

Bali and Souiss (2015), emphasized seeking the best possible learning methods. They maintained that the purpose of teaching is organizing it to increase chances for gaining skills, and learning them in the best learning conditions. They also asserted that the teaching styles the teacher apply are the most important parts of the learning-teaching process. And, that every style has a certain role in the learner's development from the skill, physical, emotional and cognitive aspects; and that the use of the teaching style depends on the type of skill, the teaching situation and the learner.

Sajet *et al.* (2013), asserted that the success of the learning-teaching process in the physical education area is not limited to the student's self abilities. Rather, it includes the teacher's role and ability to interact with the student and his practical abilities, to apply the teaching curriculum in a better manner. They also indicated that investing the principle of movement skills teaching in an educational environment, and the use of different teaching methods with the beginners, will increase the control over the movements, cleverness in performance. In addition, they will provide a reciprocal positive acceptance among the learning group participants.

Based on the results of the above studies, the researchers see that the teacher should look for the teaching styles and methods that focus on the learner's self in gaining the teaching experiences, which are made available by the teaching situation. In this concern, the teacher designs this teaching situation. Thus, his role is altered from a lecturer to an addresser, facilitator and preparer of the teaching environment.

Mosston and Ashworth (2002), indicated that when the opportunity is availed for creating a teaching environment, where the teacher and learner are present, a social relationship will be created between them, which has its particular responsibilities, rules and regulations with different dimensions that affect both the teacher and learner. The authors defined the bases upon which the selection of any teaching style in physical education is dependent. They are namely: students' abilities, age group, content to be taught, teachers' self-abilities, and teaching environment.

Fleming (1996), stressed on the need for creating changes in the educational systems, both at the school level teaching and higher education level. He stated that this could be achieved through change in the teaching process, availing chances for the student's participatory learning, and through providing a comfortable atmosphere during the learning process, proportional to the students' abilities and tendencies; taking into account the individual differences among them.

The reciprocal style is one of the teaching styles that help in achieving the educational purposes, which aim to realize comprehensive development, from all its psychological, social, physical and mental aspects, through the exchange of the students' roles (Sajet *et al.*, 2013).

Al-Zo'bi (2007), showed that this style aims to achieve cooperation, and avail an opportunity for every student to carry out application and supervision on the style. It also provides chances to teach how to provide feedback at the right time, how to practice leadership for every student, and prepare an atmosphere for the student's creativity in carrying out the task.

Al- Hamad and Al-Sayyid (2005); Prois and Prois (2008), assured that the reciprocal style helps in creating cooperation, mutual respect, patience and tolerance among the students. These styles also teach the student how to present feedback that contributes to the performance development and improvement, and in observing the success and accomplishment of the colleague's performance.

Chung and Keung (2011), stressed on the effectiveness of the reciprocal learning style in improving teaching, because the performing student obtains direct feedback on his performance. That is, there is a teacher for every student, who corrects the error and provides feedback on the performance. The student feels comfortable upon performance, because his error will be corrected by another colleague. Thus, he does not feel embarrassed in front of his colleagues. It also develops acceptance of responsibility and patience to carry out the roles truly and honestly; increases self-confidence; and improves social, skill and emotional relations. In addition, the use of reciprocal style is suitable for situations with large numbers of students, and insufficiency of training and performance devices.

Sajet *et al.* (2013), showed that the reciprocal style is the one that leads to create the reality, which helps in achieving the educational objectives that develop the student's personality from the social, psychological, physical and mental aspects. Such a development will be gained through the mutual role of the students in correcting the errors, and listening to them from the observer student.

Al-Zo'bi (2007), found that work with such a style takes the shape of a performing student and another observer student. The role of the former is to accomplish the work, and that of the latter is to provide the feedback to the performing student, depending on full information, which the teacher had already prepared, either in the form of data placed on the wall, or by prior distribution of the students. By the assertion of the teacher, they are explained in a brief manner in the main department. The mutual relationship is between two students, who perform the same role. It is this process that gave the name "reciprocal style" or the pairs work style. The roles of the teacher here are: taking the decision of the pre-teaching stage; providing the type of work in the form of data, with emphasis on the application way; and watching the works of both the performer and observer students. The performer student takes the decision of the teaching stage, meanwhile the observer student takes the decision of post-teaching stage (evaluation).

Through the revision of the above studies, the researchers find that the learning process is not merely providing and communicating information to the student. Rather, it is the process of searching for the means, methods and ways that encourage and support the student, and care for availing him an access to the information and experiences

by himself. This will help him communicate to himself the information and achieve the motor, mental, social and emotional objectives, with the least possible effort and time. Such aspects can activate the student's role, stimulate his motivation toward learning, satisfy his desires, develop cooperation and teamwork spirits, take into account the individual differences among the students. Such gains could be achieved only through the teacher who possesses ability, skill, and experience in the use of the modern and various teaching styles, which help the student's development in all the aspects. Gymnastic sports are of particular importance as they are the foundation of many sports the student learns, and help him in building himself, psychologically, physically and skillfully. Therefore, gymnastic sport teachers must search for the best teaching methods, which help students learn and master its various skills.

Accordingly, the importance of this study arises as a study using a modern teaching style, which mainly depends on the learner self, and making him the focus of the teaching process. This style keeps pace with the modern trends in the teaching styles, and identifying the effect of this style on the performance skill level of the faculty of physical education female students, Yarmouk University, who are enrolled for the course of gymnastic teaching and rhythm on the balance beam.

### 1.1. Problem of Study

The researchers, through her work as a teacher of gymnastic course in Yarmouk University, and through dialogue with the colleagues in the college, who teach the practical courses, found a lack of interest with the teachers in using modern and various teaching styles. Instead, they use traditional or imperative styles, especially when teaching the gymnastic sports on the devices; and prefer applying traditional styles that did not take into account the individual differences among the students, nor do they stimulate the students, who are the focus of the teaching process. Therefore, the researchers conducted this study applying a modern style in teaching certain gymnastic skills, to identify the effect of the use of reciprocal styles on the female students' performance skill level of certain gymnastic movements on the balance beam, in the faculty of physical education, Yarmouk University, Jordan.

### 1.2. Objective of Study

This study aims to identify the effect of the reciprocal style on the performance skills of forward rolling and leap, performed by the faculty of physical education female students on the balance beam.

### 1.3. Hypothesis of Study

This study seeks to answer the following hypothesis:

There are no statistically significant differences at ( $\alpha \leq 0.05$ ) level, between the use of the reciprocal and traditional styles of the performance skill of both forward rolling and leap, on the balance beam, performed by the female students of the faculty of physical education.

### 1.4. Domains of Study

- **Human domain:** female students of the faculty of education, Yarmouk University-Jordan.
- **Time domain:** Second Semester of the academic year 2014/2015
- **Spatial domain:** gymnastics hall, faculty of physical education, Yarmouk University-Jordan.

## 2. Methodology

The researchers applied the quasi-experimental method using the experimental design of both the control and experimental groups.

### 2.1. The Sample of Study

The sample participants were chosen by the intentional method out of the female students of the faculty of physical education, who are already enrolled for the gymnastics and motor rhythm course, during the second semester of the academic year 2017/2018 (n=58).

### 2.2. Procedures

- The researchers set a teaching program depending on the scientific references, such as: [Shaltout and Khafaja \(2012\)](#), [Abed Al Jabbar \(2002\)](#), [Mosston and Ashworth \(2002\)](#), [Al- Sayyed and Abdullah \(2000\)](#), [Shanoudeh and Mansour \(1999\)](#), [Abed Al Kareem \(1994\)](#), [Abed Al Moneim et al. \(1993\)](#), [Al- Na'eemi and Hussein \(1991\)](#). She also designed the reference labels of the skills, which are clarified in Appendant No. (1).
- The skills and test to measure these skills were determined. Namely rolling forward skill, and leap skill on the balance beam, based on the opinion of the experts.
- The teaching program components were defined as follows:  
It consisted of 12 teaching units, distributed over 6 weeks at the rate of two units weekly, as follows":  
**Week One:** First and second units: general and special physical preparation.  
**Week Two and Three:** Third, fourth, fifth and sixth units: teaching the forward rolling skill on the balance beam.  
**Week Four and Five:** Seventh, eighth, ninth and tenth units: teaching the leap skill on the balance beam.  
**Week Six:** Eleventh and twelfth units: training on all the skills and post measurements.

### 2.3. Distribution of the Lesson Period (60 minutes) as Follows

- Introductory period (20 Minutes)
- Checking the attendance and absenteeism (5 minutes)
- General and special physical preparation (15 minutes)

### 2.4. Main Period

Teaching part (10 minutes): explaining the skill by the researchers, and making a model for the students by the researchers too.

Application part (25 minutes): the students were distributed over groups, and worksheets were also given to every group. The researchers monitored the performance of every group, and the roles were altered among them.

Concluding part (5 minutes): calming and flexibility exercises, and answering the students' inquiries.

- Paper sheets and pens were given to the students.
- The roles were distributed among them, and the researchers explained the procedures the students should adhere to.
- Emphasis on the role alternation and monitoring the students' performance.
- The control group performed through the traditional style in learning the skills subject matter of this study. The skill was explained by the teacher, training on the skill performance was made by the female students, and the teachers corrected their errors.
- The performance skills of both groups were measured during the period from 19 to 21 Dec. 2107, by expert female teachers, who had experience in gymnastics teaching. They took the mean of the total grades for measuring the skills.
- The study variables were defined as follows:
  - **Independent variable:** the reciprocal learning style.
  - **Dependent variable:** skills performance level of students, on the balance beam (forward rolling and leap).

### 2.5. Statistical Procedures

The researchers utilized the means (M's), standard deviations (SD's), and t-test for the independent samples.

## 3. Results

To achieve the aim of the study which refers to identify the effect of the reciprocal style on the performance of forward rolling and leap skills, performed by the faculty of physical education female students on the balance beam, T-test for the independent samples was used and [table \(1 and 2\)](#) illustrate that:

**Table-1.** Means and Standard Deviations of the Rolling and Leap Skills on the Balance Beam on the Post Test of both the Traditional and Reciprocal styles

Skill	Method	No.	M	SD
Forward Rolling	Traditional style	29	5.897	1.047
	Reciprocal style	29	7.207	0.559
Leap	Traditional style	29	6.277	0.959
	Reciprocal style	29	7.172	0.711

The table shows that there are apparent differences in the means, with the mean of the rolling skill of the traditional style is (5.897±1.047), while the means of the reciprocal style were (7.207±0.559) respectively. As for the dart leap of the traditional style, the means were (6.276±0.959). On the other hand, the means of the reciprocal style were (7.172±0.711) respectively. To verify the statistical significance of these differences, T-test was used, as shown in [Table \(2\)](#).

**Table-2.** T-Test Results for Independent Samples on the Post Test to Compare between the Traditional and Reciprocal styles of Both Rolling and Leap on the Balance Beam

Skill	Method	T-Value	Freedom Degree	Actual Significance Level	Significance
Forward Rolling	Traditional style	-5.945	56	0.001	Significant
	Reciprocal style				
Leap	Traditional style	-4.043	56	0.001	Significant
	Reciprocal style				

The table shows statistically significant differences in both the forward rolling and leap skills. T- value was (-5.945) for Rolling skill and (-4.043) for leap skill with ( $p \leq 0.001$ ) for both, which is statistically significant, and was in favor of the group with the highest mean, the experimental group, the one applied the reciprocal style.

## 4. Discussion

The researchers found higher performance level of the groups applying the reciprocal style in the performance skill for both the rolling forward and leap skills, on the balance beam, than the group applying the traditional group.



She explained this by that the reciprocal style depends on the exchange of roles among the learners during performance, and obtaining the feedback directly after performance, which are very important components for improving the performance. Sharing and accepting the responsibility through observance of the performance, and giving the accurate information about the performance, directly by the observer colleague, contributed in giving better results than the feedback of the teacher only. The students had written information about the performance are better, this result agreed with Sontana *et al.* (2015) study. The performing student feels comfort and non-embarrassment from her colleagues as a result of committing a mistake. She cooperates with her observer colleagues who correct her mistake, instead of the teacher, which contributed to the improvement of the performance level of the group applying the reciprocal style. Again, this is in line with the results of the study of Sontana *et al.* (2015), that the performance of the group using the reciprocal style improved. It is also in line with the study of Prois and Prois (2008); in that the use of the reciprocal style improved the performance level and cognitive aspect, although it was not statistically significant. Their study further showed that the performance was better in favor of the groups that used the combined method (reciprocal and training). The current study agrees with other studies as follows: Study of Sajet *et al.* (2013), which showed that the reciprocal style has a better effect in learning the scoring skill in football than the use of the guided detection method. Al-Zuhairi (2007), found an effectiveness in the use of the reciprocal style in learning the serving, passing from below, and front preparation skills in the volleyball. Results of the study of Abed Al Jabbar (2002), indicated a variation in the learning levels of certain gymnastic skills, which were in favor of the reciprocal style. Finally, the current study is in agreement with the results of the study of Chung and Keung (2011); in that the use of the reciprocal style improved the performance skill level. But this study results are not in line with that of Suleiman and Adel Saeed (2011); in that the comparative, competitive style had higher effect than the reciprocal style in learning both the receiving and serving skills in volleyball.

## 5. Conclusions

- 1- The reciprocal method had a positive effect on learning forward rolling skill on balance beam upon female students of faculty of physical education.
- 2- The reciprocal method had a positive effect on learning leap skill on the balance beam upon female students of the faculty of physical education.

## Recommendations

The researcher recommended to use the reciprocal teaching style. And amendment of the physical education curriculum so that it will include the modern teaching styles.

## Limitations

The study has several limitations. First, bias existed due to the way the researcher chose the study sample. Second, the results are generalizable only to the target population and to the same sample. finally, the results of the study were based on perspective of the participants themselves.

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