The effect of using the two competitive teaching styles and stations on learning some basic football skills for physical education students

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Abstract

Background and Study Aim The present study investigates the effect of two different teaching methods, which are represented in the collective competitive method and the station method in teaching some basic football skills to students of faculty of physical education and sports sciences at the university of Benghazi, which can be used by workers in the field of teaching physical education.

Material and Methods Data were collected with 40 students. The research sample was divided randomly into two groups of (20) students for each group, where the first group applied the competitive method, and the second applied the stations method. A quantitative study used based on tests and measurements consisting to identifying basic skills in football.

Results Students shared several two experimental groups approach. However, significant differences emerged in developing some basic football skills. The competitive method made a remarkable development in all basic skills. However, the latest stations style marked development in all basic skills. In addition, data are provided indicating that the competitive style surpassed the stations method in the post tests in all basic skills.

Conclusions The physical education lesson is important area to improve the motor performances and acquisition of the basic skills. In this context, students largely support the practice of the ball. This study will encourage teachers to use two styles (competitive style and station style) to develop the basic skills of football, organize the units in such a way that they achieve the principle of continuity through succession between the parts of the skill to teach.

Keywords: physical education, teaching practice, football skills, competitive method.

Introduction

Football is a collective sport of confrontation, intention and tactical game decision. However, professional performance is based on harmonious management [1]. Brady et al. [2] describe the world of football as a “talent economy”. Sennaux [3] underlines that the professional player has an individual talent conditioned by the perfect complementarity of the players. Also, it is a motor activity that values the collective mastery of a balance of power between two teams after numerous duels, in order to win. In other words, it is an art of combining and optimizing the actions of players to achieve victory [4]. In this context, the technical side is more important in training even if the physical side remains a priority [5]. In this sense, Turpin [4] defines training as a process that produces a modification (physical, motor, cognitive, affective). From this, Mercier [6] specifies everything that includes physical, technical-tactical, intellectual and moral preparation with the help of physical exercises. Currently, football is the most popular social form of physical practice, both in terms of the number of practitioners and in terms of media coverage [7]. It represents “a cultural phenomenon whose echoes can be heard well beyond the stadiums” [8].

Indeed, children do not do physical education (EP) at school but sports. More specifically, teachers are encouraged to draw on physical, sporting and artistic practices present in society. Thus, the competitive sports model (assuming codified confrontation) is the main mode of practice offered to students [9]. In other words, as proposed by [10], the practice of football in EP can constitute “an opportunity for students to build themselves through the presence of others. Thus, the teaching of team sports at school must reflect the balance of power, and its structures, by systematizing situations that bring into play the reality of the opposition specific to team sports [11]. The teaching of football at school can be summed up in the application of the tactical model insofar as it allows the transmission of principles of the game, roles to be understood and recreated in the situation and actions which change or move the game [11]. In this context, the physical education lesson, in its concept and units, makes a contribution to the student’s life, and is an important area of public education in
society, a vital part of modern education, it is main axis of the educational process directed towards the pupil, it helps to improve the motor performances of the pupils and their acquisition of the basic skills. It helps the learner to gain experience through exercises, competitions and games with colleagues or alone [12, 13]. Gréhaigne et al. [14] note that the student will quickly have to be confronted with making complex strategic and tactical choices (diversity of alternatives, combination of actions) and with significant time pressure, which seems to be expected by the students. This is why the tactics and the strategy cannot be eluded by the teachers for the elaboration of a cycle of football. Especially since this approach will allow students to adapt to changes in status (defender / attacker) but also to anticipate and sequence actions despite the opposition. Hebert [7] opined that the EP teachers generally show less affection than students for the sport. This observation is confirmed in the school context since teachers rank football in last position among their favorite physical activities. This is not the case for students who largely support the practice of the ball in physical education.

Therefore, it seems that the diversity of teaching methods and models have generated increased interest among teachers [7, 15, 16]. Some authors suggest that teachers look for different methods to teach effectively and achieve educational purposes [17, 18]. Through the program and the objectives set, it is knowing how the student learns but it is also important to know what he has learned [19, 20, 21]. Resulting from the reflections of several researchers, a teacher cannot rely solely on his academic knowledge; he/she must also have additional training providing him with didactic and pedagogical skills [22, 23]. As a result, the activity of PE teachers is apprehended in situations which aim to mobilize and maintain the work collective that constitutes the students [24, 25].

This research is related to cognitive development in the field of human sciences in general, physical education in particular, and teaching methods and methods. Indeed, studies in the field of physical education envisage a better future for achieving educational purposes and benefitting from the evolution of teaching methods in the light of scientific development [26]. Remarkably, teaching football using the traditional method depends on the experience of the teacher and the program. In this study, we tried two new teaching methods (the competitive method and the station method) in learning basic soccer skills. At the faculty of physical education and sports sciences at the university of Benghazi, what is the effect of using the competitive teaching method on learning some basic football skills for students of the first experimental group? What is the effect of using the method of teaching stations on learning some basic skills in football for students of the second experimental group? Are there statistically significant differences in measurements dimensional between the first and the second experimental group in developing some basic football skills?

**Material and Methods**

**Participants**

The research involved a cohort of 40 students (STs) males (76.92 %), from total 52 STs (100 %) studying in the faculty of physical education and sports sciences at the university of Benghazi. Two female students and 10 students were excluded from the research community and outside the research sample. All participants in this study were volunteers'. They were recruited from a single faculty of physical education and sports (Libye). The group of participants consisted of the third year. The ages of the participants varied from 21 to 25 years old and the mean age was 21.42 ($SD = 0.63$). All were aged between (23 ± 2 years) registered in the first year, by the master's degree in physical education. The research sample was divided randomly into two groups of 20 students for each group, where the first group applied the competitive method, and the second applied the stations method (see Table 1).

**Research Design**

In this study, we chose the experimental approach to ensure internal and external validity of the results. In order to achieve the objective, this approach was used with two equivalent groups. Regarding the variables related to the research, we formed equal groups and performed a parity between them to adjust the variables (1) age measured by year, (2) weight measured in kilograms, (3) height measured in centimeters. The significance of the differences in the above variables is approved. Also, equivalence was determined between members

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total number</th>
<th>Group</th>
<th>Experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive method</td>
<td>20</td>
<td>First</td>
<td>Experimental (1)</td>
</tr>
<tr>
<td>The style of the stations</td>
<td>20</td>
<td>Second</td>
<td>Experimental (2)</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

**Table 1. The research sample for the two experimental groups**
of the two research groups. The tabular (t) value at the significance level (0.05) and degree of freedom (18) is (2.10). The results show that there are no significant differences in variables, indicating the homogeneity of the two sample groups (see Table 3).

Equality was also conducted between members of the two sample groups in basic football skills. This is to identify the level of the students in these skills, and to check the parity of the two groups. The tabular (t) value at the significance level (0.05) and degree of freedom (18) is (2.10). The results show that there are no significant differences in variables, indicating the parity of the two sample groups (see Table 3).

Measures
This quantitative study used several research methods to access the required research data and results, which are scientific sources and references, tests and measurement. After reviewing the football academic curriculum and scientific references, a number of core competencies were identified and put into the form of a questionnaire which was presented to a group of experts in the field of education, tests and measurements in football. The most important basic skills: running with the ball, hitting the ball with different parts of the foot, hitting the ball with the head, throwing.

Also, after identifying the important and appropriate football skills for the students of the research sample, special and appropriate tests for these skills were fixed and then presented to a group of experts. (75%) or more from the opinions of specialists, and the tests that have been approved are: (i) running a football test between (5) signs to measure the ability to control the ball; (ii) test kicking the ball with different parts of the foot farthest away; (iii) heading test for stability and movement; (iv) the farthest throw-in test. Thus, the basic skills tests used in the current research are standardized tests, and according to scientific sources, the standardized test (if an experiment is used for samples similar to the sample to be tested, prove a high degree of significance in terms of validity, consistency and objectivity under the same conditions and capabilities available), and in this study the tests are prepared. The used tests are standardized and appropriate for the research sample, as they have been applied in previous and similar studies that have been touched upon.

Data were collected through the devices and tools (1) devices: a weighing scale, an electronic stopwatch, count; (2) tools: tape measure, footballs, whistle, and funnel. In relation to the homogeneity and equivalence of the research sample: the researcher, together with the assistant work team, conducted a number of exploratory experiments

<table>
<thead>
<tr>
<th>The group</th>
<th>Pre-test and equivalence of the two research groups</th>
<th>Independent variable</th>
<th>The post test between the two research groups (dependent variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental (1)</td>
<td>Age, weight, height. Running with the ball, kicking the ball, heading the ball, throwing in</td>
<td>Competitive method</td>
<td>Running with the ball, kicking the ball, heading the ball, throwing in</td>
</tr>
<tr>
<td>Experimental (2)</td>
<td></td>
<td>Stations style</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The exams</th>
<th>The first experimental group</th>
<th>The second experimental group</th>
<th>Calculated (t) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running by ball / sec</td>
<td>0.921 19.830</td>
<td>0.787 20.100</td>
<td>0.704</td>
</tr>
<tr>
<td>Kick the ball to different parts / degree</td>
<td>0.788 9.800</td>
<td>1.316 10.200</td>
<td>0.824</td>
</tr>
<tr>
<td>Heading / Score</td>
<td>1.686 8.800</td>
<td>1.699 9.000</td>
<td>0.264</td>
</tr>
<tr>
<td>Throw in / score</td>
<td>8.164 000.60</td>
<td>8.432 64.000</td>
<td>0.078</td>
</tr>
</tbody>
</table>

### Table 2. The experimental design of the two research sample sets

### Table 3. The statistical parameters of the age, weight and height variables for the two research sample groups

<table>
<thead>
<tr>
<th>Age / year</th>
<th>Weight / kg</th>
<th>Height / cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>sd</td>
<td>p</td>
</tr>
<tr>
<td>0.721</td>
<td>19.00</td>
<td>0.816</td>
</tr>
<tr>
<td>1.456</td>
<td>65.40</td>
<td>1.573</td>
</tr>
<tr>
<td>2.180</td>
<td>170.20</td>
<td>2.097</td>
</tr>
</tbody>
</table>

### Table 4. The basic variables for football skills of the two research groups

| Running by ball / sec | 0.921 19.830 | 0.787 20.100 | 0.704 |
| Kick the ball to different parts / degree | 0.788 9.800 | 1.316 10.200 | 0.824 |
| Heading / Score | 1.686 8.800 | 1.699 9.000 | 0.264 |
| Throw in / score | 8.164 000.60 | 8.432 64.000 | 0.078 |
on (10) students from the research community and outside the research sample.

**Procedures**

First of all, the permission was granted by the director of university of Benghazi and teachers to realize the current study. Then, the educational plan for teaching was implemented in a competitive manner and stations. There was an educational plan for each of them during (8) weeks, according to a weekly educational plan for each group, and according to a lecture every week, as the time of the lecture was two hours every day (Saturday) of each week, where the first experimental group used the lecture plan in a competitive manner, and the second experimental group used the content of the lecture in the method of stations. The students of the two groups of the research sample received instruction in the recreation classes of the Faculty of Physical Education of the University of Benghazi, and the implementation of the experiment lasted two months. In addition, post-tests were conducted on the students of the two sample groups after completing the implementation of the two methods, in order to determine the level of basic skills that the students of the two sample groups.

**Statistical Analysis**

Analyses were performed using statistical software SPSS 23 (Statistical Package for social science) program. The following variables were calculated using: Arithmetic mean, Standard deviation, Simplex correlation coefficient (Pearson), T-test for two unrelated averages for two equal samples and T-test for two related means for two equal samples.

**Results**

**The effect of using the competitive teaching method**

**The first experimental group (the competitive teaching method)**

The results of the first question: What is the effect of using the competitive teaching method on learning some basic football skills for students of the first experimental group at the Faculty of Physical Education and Sports Sciences at the University of Benghazi? emerged from the data collected were illustrated in Table 5. Significant when the error ratio ≥ (0.05) and before the degree of freedom (9) and the tabular value of (t) = (2.26). It is evident from the above table that the calculated values of (t) appeared greater than the value of (t) scheduling, significant differences were also found in favor of the post-test.

**The second experimental group (the teaching stations method)**

The results of the second question: What is the effect of using the method of teaching stations on learning some basic football skills for students of the second experimental group at the Faculty of Physical Education and Sports Sciences at the University of Benghazi? emerged from the data collected were illustrated in Table 6. The results indicate that the calculated values of (t) appeared greater than the

<table>
<thead>
<tr>
<th>Basic skills</th>
<th>Measuring unit</th>
<th>Tribal measurement</th>
<th>Dimensional measurement</th>
<th>Calculated (t) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running with the ball</td>
<td>Second</td>
<td>19.830</td>
<td>16.980</td>
<td>10.377 *</td>
</tr>
<tr>
<td>Kick the ball with different parts of the foot</td>
<td>Degree</td>
<td>9.800</td>
<td>13.200</td>
<td>9.160 *</td>
</tr>
<tr>
<td>Heading the ball</td>
<td>Degree</td>
<td>8.800</td>
<td>11.800</td>
<td>4.881 *</td>
</tr>
<tr>
<td>The throw-in</td>
<td>Degree</td>
<td>60.000</td>
<td>76.000</td>
<td>5.237 *</td>
</tr>
</tbody>
</table>

Note: * Significant when the error ratio ≥ (0.05) and before the degree of freedom (9) and the tabular value of (t) = (2.26).

<table>
<thead>
<tr>
<th>Basic skills</th>
<th>Measuring unit</th>
<th>The pretest</th>
<th>Post test</th>
<th>Calculated (t) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running with the ball</td>
<td>Second</td>
<td>20.100</td>
<td>18.590</td>
<td>3.784 *</td>
</tr>
<tr>
<td>Kick the ball with different parts of the foot</td>
<td>Degree</td>
<td>10.200</td>
<td>12.100</td>
<td>3.994 *</td>
</tr>
<tr>
<td>Heading the ball</td>
<td>Degree</td>
<td>9.000</td>
<td>10.600</td>
<td>2.753 *</td>
</tr>
<tr>
<td>The throw-in</td>
<td>Degree</td>
<td>64.000</td>
<td>69.000</td>
<td>3.000 *</td>
</tr>
</tbody>
</table>

Note: * Significant when the error ratio ≥ (0.05) and before the degree of freedom (9) and the tabular value of (t) = (2.26).
value of (t) scheduling, which indicates the presence of significant differences in favor of the post-test.

Impact on developing some basic football skills

The results of the second question: Are there statistically significant differences in the telemetry between the first experimental group and the second experimental group in developing some basic football skills? emerged from the data collected were illustrated in Table 7. The measurement shows that the calculated values of (T) appeared greater than the value of (T) scheduling, and this indicates the existence of significant differences between the members of the two groups.

Discussion

To provide a training quality in terms of teaching practice for student-trainees that meet the challenges and requirements in movement and activity and learning skills. Thus, the purpose of this research was to know the possibility of the sample to apply tests for competitive method and stations are believed to be important for a successful teaching and training in football performance and motor skills.

According to our results, there are significant differences between the results of the basic skills tests, before and after, for two experimental groups. Therefore, we refer the reasons for these differences in basic skills to the effectiveness of the educational plans applied to the students of the first two experimental groups who use the competitive method, and the second who uses the station method. Also, the choice of exercises aimed at teaching these skills and the organization of the skills listed in each teaching plan. Moreover, the optimal investment of real time allocated to the implementation of motor duty, which leads to an increase in real practice by participating in the performance of all students, which has led to an increase in movement and activity and learning these skills. According to Mujika et al., [27] sports training is a complex action exerting a systematic and specific effect on the level of sports performance and the capacity for optimal performance in a situation of test and competition. Thus, the relationship between the motor skills, which are the general prerequisites of the performance, and the motor skills which are the automated patterns of the sports discipline considers, constitutes the basis of the relationship general load / specific load [28, 29]. In this context, Gréhaigne et al. [30] confirm that the use of lesson time to increase performance and motor skills will allow learners to develop many physical, motor and motor skills. The ability to stabilize this learning is not an easy process, so it is necessary to practice correctly. To benefit from it in other situations similar to this acquired skill [31]. The students’ interaction with these exercises helped increase the excitement of Lal’s lesson and this is what he pointed out. The competitive learning method provides students with opportunities for competition, enthusiasm and effective participation in assigned tasks, as well as the initiative and collective responsibility of each group when implementing skills, increases the student interaction with each other. This leads to the learning of skills within the group and reinforces the desire to learn the skills and be effective [32, 33]. Finch et al. [34] highlight the importance of training programming and its content. It states that it is a systematic planning process based on practical experience and sports science knowledge of structuring (long-term) training according to a training objective and individual level of performance. As a result, the development of the various training programs can be designed as a coaching program, a collective or individual program, over several years or annually, over a long cycle or on a training unit [35, 36, 37, 38]. In addition, the individual training program contains the fundamental guidelines that will allow you to achieve optimal performance. It defines the objectives, tasks, contents, means, methods, organization, evaluations and competitions [19, 20, 21, 39].

Our results, also, showed (see Table 7) there are statistically significant differences between the scores of the experimental groups and the second in all the basic skills in the game of football in

### Table 7. The statistical differences in developing some basic football skills

<table>
<thead>
<tr>
<th>Basic skills</th>
<th>Measuring unit</th>
<th>The first experimental group</th>
<th>The second experimental group</th>
<th>Calculated (t) value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sd</td>
<td>p</td>
<td>sd</td>
<td>p</td>
</tr>
<tr>
<td>Running with the ball</td>
<td>16.890</td>
<td>0.675</td>
<td>18.590</td>
<td>0.814</td>
</tr>
<tr>
<td>Kick the ball with different parts of the foot</td>
<td>15.200</td>
<td>0.612</td>
<td>12.100</td>
<td>0.994</td>
</tr>
<tr>
<td>Heading the ball</td>
<td>11.800</td>
<td>1.475</td>
<td>10.600</td>
<td>1.349</td>
</tr>
<tr>
<td>The throw-in</td>
<td>76.000</td>
<td>5.163</td>
<td>69.000</td>
<td>7.378</td>
</tr>
</tbody>
</table>

Note: * Significant when the error ratio ≥ (0.05) and before the degree of freedom (18) and the tabular value of (t) = (2.10).
favor of the first experimental group applied in the competitive method. It is believed that the reasons for these differences in basic skills were in favor of the first experimental group. In the competitive method are the exercises aimed at developing the basic skills in a competitive way, as well as the exercises used in the lecture had a clear objective, which facilitated the work of the students. Thus, repeating the exercise several times allows the student to master the skill and perform it better correctly during the game. This method provided the students with a similar atmosphere of the match and motivates them in training the basic skills. It comes out that competition is one of the procedural method which pushes the relative activity, helps the process of education and training, make known the characteristics of the competitor and his strengths and weaknesses by practicing with a colleague during execution skills. This is one of the main points to improve the performance level of skills, unlike activities that are not characterized by direct competition, which has less effect due to the absence of a competitive factor. In football, a physical quality is a global characteristic of motor skills, and an individual only possesses it if he is able to mobilize it in most situations encountered. This quality is therefore endowed with a transferable and operational nature, which will facilitate the acquisition and quality of motor learning. In this sense, Manno [28] distinguishes three major types of motor capacities: (i) conditional capacities: are based on the metabolic efficiency of muscles and apparatus: strength, endurance and speed, (ii) coordinative capacities: are determined by the neuromuscular mechanisms allowing to organize and regulate the movement: the address, (iii) Intermediate abilities: flexibility and simple reaction speed. From this, Karalejic et al. [40] distinguish two main types of physical qualities: (i) the factors depending mainly on physical condition (and energy processes): endurance, strength and speed, (ii) factors mainly dependent on the control processes of the nervous system – flexibility and the ability to coordinate. In recent years, there has been a growing number of studies on the types of training specific to football. It is within this development that we notice a strong emphasis on the effects of reduced games [41]. Gréhaigne [42] suggests taking into account the internal logic of reduced games, which means that the player must highlight his performance qualities, in a permanent uncertainty of the opponent and his partners. In addition, reduced play retains important elements of tactical complexity, but allows execution with a level of physical demands (smaller space) and greater time (lower player density) that better matches the level of beginners [43].

Conclusions

This article focuses on the effect of two different teaching methods, which are represented in the collective competitive method and the station method in teaching some basic football skills to students, and encourage teachers to use two styles. After presenting, analysing and discussing the results, the researcher reached the following conclusions:

(i) the competitive method made a remarkable development in all basic skills (running with ball, kicking the ball with different parts of the foot, hitting the ball with the header, throwing in);
(ii) the latest stations style marked development in all basic skills (running with ball, kicking the ball with different parts of the foot, hitting the ball with the header, throwing in);
(iii) the competitive style surpassed the stations method in the post tests in all basic skills.

In light of the researcher’s conclusions, the researcher recommends the following: emphasizing the use of two styles (competitive and station style) in developing basic football skills, organizing units so that they achieve the principle of continuity through succession between skill parts, and teaching newly experienced students on methods teaching that depends on the method of competition and stations during preparation and development cycles, and conducting similar research using multiple methods in different study stages according to other study subjects.

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Conflict of interest

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