Impact of obstetric learning strategy on creative thinking and some basic volleyball skills Aircraft for students of the Faculty of Physical Education and Sports Sciences

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Abstract
The study is important in its use of an obstetric learning strategy to recognize its impact on creative thinking. The transmission skills are discussed below, where we prepare and receive the transmission by volleyball. The researchers used the experimental curriculum in the manner of the two equal groups to apply the study procedures. The research sample was 40 second-stage students of the Faculty of Physical Education and Sports Sciences - Qadisiyah University. They were randomly divided into a police group, the "E" division was 20 students as a Pilot group and division (d) was 20 students. Necessary tools and devices have been used which included the strategy of obstetric learning and exploratory experience. The main field of experience involved post testing and the application of the strategy and then remote testing. The researchers concluded the student’s need this strategy to help them improve creative thinking in learning the skills of preparation, reception and dispatch from below fending off volleyball. They recommend utilizing and giving sufficient space to the education units' obstetric learning strategy because of its active role in creative thinking and learning skills.

Introduction
Sports education in general is considered to contribute to the development of capacities. These include students’ mental abilities, which contribute to accelerating the learning process and enhancing performance depending on the safety of the nervous system, especially the main part of it, the brain. As the Centre for Control and
the Collection and Analysis of Information as well as a source for the production of new information, one of these capabilities is creative thinking as an important mental activity characterized by abundant ideas and the production of high-quality solutions to complex problems and strange and mysterious situations. In addition, it contributes to optimal performance in gaming in general and volleyball in particular because of its offensive and defensive skills. Its performance requires continuous development and care in mental abilities, including transmission skills from below. Preparation and reception as an important skill in a game in volleyball help to earn points in a match. The importance of research is to use an obstetric learning strategy to show its impact on creative thinking and learn the skills of sending from below and preparing and receiving students.

The researcher in performing some accidental tests to students of the Faculty of Physical Education, Qadisiyah University found that there is a poor level of performance of some basic volleyball skills. The reason is because the teacher uses the "UN" method in which the teacher is responsible. All the details of the lesson in learning skills are not suitable to the development in learning in terms of using some modern methods to improve the learning process at present. They do not give the student a fundamental and active role in the learning process. Teachers lack interest in systematically distributing time to the lesson. In the researcher's view, this problem is addressed through the use of an obstetric learning strategy. So this study came as an attempt to answer the next question? Does the strategy of obstetric learning have a positive impact on creative thinking? Some basic volleyball skills for second-level students are learned by the sample of the study.

The study recognizes the impact of obstetric learning strategy on students' creative thinking. It also shows the impact of obstetric learning strategy on some basic volleyball skills.

The hypothesis of the study is that obstetric learning strategy has a positive impact on students' creative thinking. It also assumes that the obstetric learning strategy has a positive impact on some basic volleyball skills of the students of the Faculty of Physical Education and Sports Sciences - Qadisiyah University for a period of 12/2/2022 to 16/4/2023 by the use of research curriculum.

The researcher used the experimental curriculum - in the manner of the two equal groups – pre and posttests of relevance to the study’s nature and objectives. The researcher used the following research tools to reach the results and achieve the goals:

Research Community is the Second-Level Students Faculty of Physical Education and Sports Sciences- Al-Qadisiyah University, which has 90 students divided into the people of C, D and E. The search sample was
selected in a random manner, namely, E and D divisions. They were randomly divided into two groups: a control group and a pilot group with 20 students per group.

The researcher conducted harmonization and parity of members of the research community as shown in table (1)

Table (1) Shows consistency and parity of control and experimental groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>Experimental Group</th>
<th>Control Group</th>
<th>level of indication</th>
<th>level of indication</th>
<th>t. calculated</th>
<th>E</th>
<th>D</th>
<th>E</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative thinking</td>
<td></td>
<td></td>
<td>0.922</td>
<td>0.010</td>
<td>0.756</td>
<td>0.313</td>
<td>2.585</td>
<td>61.550</td>
<td>2.462</td>
</tr>
<tr>
<td>Set up volleyball</td>
<td></td>
<td></td>
<td>0.860</td>
<td>0.032</td>
<td>0.703</td>
<td>0.384</td>
<td>0.827</td>
<td>7.500</td>
<td>0.821</td>
</tr>
<tr>
<td>Reception volleyball</td>
<td></td>
<td></td>
<td>0.475</td>
<td>0.527</td>
<td>0.595</td>
<td>0.536</td>
<td>1.040</td>
<td>8.350</td>
<td>0.696</td>
</tr>
<tr>
<td>Transmitter from the bottom volley ball</td>
<td></td>
<td></td>
<td>0.974</td>
<td>0.001</td>
<td>0.759</td>
<td>0.309</td>
<td>0.852</td>
<td>7.900</td>
<td>1.170</td>
</tr>
</tbody>
</table>

Means of data collection: This research entailed many means of data collection, namely:

1. Questionnaire (measure of creative thinking).
2. Test and measure (some basic volleyball skills).

**Devices and tools (number), help:**

The researcher used many devices and tools to assist in the process of obtaining the required data:

1. Measuring tape.
2. Plane balls.
3. Volleyball court.
4. Manual Calculator
5. Lab Tub.
6. Office tools (papers and pens).
7. Test results registration form.

**Research tests:**

**Creative Thinking Test (Mohammed, 2013):**

The measure of creative thinking prepared (Mohammed, 2013) 35 items, as the items were drafted to learn about creative thinking. Three-weight alternatives were given the following:

(I agree, hesitant, I disagree) I gave the answer alternatives grades by item types. Alternatives are given the answer to the positive item (1,2,3) and the negative item (3,2,1), so it’s the highest score on the scale is 105 and the lowest degree is 35.

**Tests of certain basic volleyball skills:**

First, test the accuracy of the volleyball preparation skill (Al-Zubaidi, 2011).

The test measures the accuracy of the preparation skill.

Used Tools are test tool installed, Legal Aircraft Balls Number (5), Pre-prepared Accuracy Calendar Form. Performance Method: - The student stands at the place of preparation Center No. (3) and the tool at Center No. (4) at 60 cm from the sideline and 120 cm from the halfway line and above (180cm) from the test tool, Then the teacher handles the ball for the student who tries to pass it into the box frame that is on top, each student is given (5) attempts.

Registration

- Ball that has not reached the instrument and the frame is given zero.
- Ball close to the top frame (2) 2 points.
- Ball that touches the top frame (3) points.
- Ball that enters the top frame (5) points.
- The total grade obtained by the laboratory (25 points)
Second: Test the accuracy of the delivery skill from the bottom of the volleyball (Trainer's Manual in Volleyball Tests/Planning/Records, T1, 1999).

The test measures the accuracy of the skill of receiving volleyball transmission.

Tools used are Legal Volleyball Stadium, Legal Jet Balls Number (10), Metal measuring tape, colorful chalk to divide the pitch, as shown in figure (10) below.

Performance method: The student leads the lab by performing (5) attempts from Zone A to the centers (2, 3, 4) as well as performing (5) attempts from area (b) to centre (2, 3, 4). The tested student must commit to receiving from the designated area and guide the desired center ball.

Registration:

The student tested receives the degree of position in which the ball is located, as follows:

- The ball in the center (4) takes the tester (1) degree.
- The ball at center (3) takes the tester (2) 2 degrees.
Third: Test the accuracy of the transmission skill from the bottom facing volleyball (Hassanin, 1995)

The objective of the test is to measure the accuracy of the transmission skill from the bottom facing.

Tools used are Legal volleyball court and legal aircraft balls Number (5) and a coloured strip to divide the areas of the pitch opposite, as shown in figure (3). 

- The lab student stands in the middle of the final line of the stadium within (9) m of the net. The lab student is holding the ball to perform the transmission from below to cross the net ball into the planned half of the pitch.

- If the ball touches the net and crosses it to half the planned pitch or go outside the stadium, the student's lab attempts (of the five attempts) do not count.

- The lab student gets the degree of the area where the ball is located for each correct transmission. As each student has a laboratory (5) attempts, the grades are spread over the regions (1-5) grades. The great class of this test is (25) degrees while noting that in the event of the ball falling on a line separating two areas calculated for the student the higher zone grade, as shown in figure (3).
Figure (3) Performance accuracy test shows the transmission skill from below facing volleyball

Scientific bases of tests:

1- Honesty:
The researcher has extracted apparent honesty, which is based on the extent to which the test represents the phenomenon it measures, through the questionnaire distributed to (7) specialists. It indicated the validity of the test through the following: (The test is valid if it achieves 100% of the total expert opinions to approve the test’s representation of the phenomenon it measures). After collecting and discharging the data, the researcher used the C2 test. The results showed acceptance of the nomination of tests to achieve greater values than the calendar value (c2) of 3.84. at a degree of freedom (1), and a significant level (0.05).

Table 2 the validity of the tests.

<table>
<thead>
<tr>
<th>Difference Indication</th>
<th>Value (c2)</th>
<th>Number of answers</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scheduling</td>
<td>Calculated</td>
<td>Don’t fix</td>
</tr>
<tr>
<td>Moral</td>
<td>3.84</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Moral</td>
<td>3.84</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Moral</td>
<td>3.84</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Moral</td>
<td>3.84</td>
<td>7</td>
<td>-</td>
</tr>
</tbody>
</table>
The discriminatory ability of the measure of creative thinking:

To reveal the discriminatory ability of the Creative Thinking to measure in question, it has been applied to a sample of 70 students from the second phase. The researcher compared the test results for the sample of the survey experiment. For each item of the scale, a test ($v$) was used.

The sample is divided into two upper groups and a lower group (27%) when comparing the calculated value ($v$) that was confined between (5.521 - 10.309) with the tabular value of (2.091). At a degree of freedom (36) and an indicative level (0.05), the statistically significant $T$ value is an indicator of differentiation of the measure of creative thinking.

Persistence:

The researcher tried to find a consistency factor for the tests in question (creative thinking, preparation skill, volleyball reception skill, transmittal from the bottom volleyball). By finding a correlation between its results, another test was conducted after 7 days. After Pearson's coefficient was calculated, between the two test scores, the correlation appeared to be moral. The $T$ test value calculated for the connectedness of the association was greater than the tabular value of (2.160) At a degree of freedom (13), and an indicative level (0.05), it demonstrates a high degree of stability of the test in question as table 3.

Table 3 The coefficient of stability shows the tests applied to the sample of the reconnaissance experiment

<table>
<thead>
<tr>
<th>Statistical connotation</th>
<th>Value (v)</th>
<th>Constant Factor</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scheduling</td>
<td>Calculated</td>
<td></td>
</tr>
<tr>
<td>Moral</td>
<td>2.160</td>
<td>6.528</td>
<td>Volleyball Preparation Skill</td>
</tr>
<tr>
<td>Moral</td>
<td>2.160</td>
<td>9.494</td>
<td>Volleyball reception skill</td>
</tr>
<tr>
<td>Moral</td>
<td>2.160</td>
<td>10.528</td>
<td>Transmitter from the bottom volleyball</td>
</tr>
</tbody>
</table>

The firmness of the Creative Thinking Scale used halfway fragmentation and correlation coefficient to stabilize half the test. The researcher applied the Spearman Brown equation, which showed that Spearman Brown’s amount was 0.870.
Field research procedures

Post Test:

The post test of the research sample (control and experimental) took place at 10:30 a.m. on Wednesday 12/2/2022 at the playground of the Faculty of Physical Education and Sports Sciences.

The test conditions have been fixed in terms of location, time, tools used, modality of implementation and auxiliary team for the purpose of achieving the same conditions or as close as possible to the conditions of dimensional measurement.

Educational curriculum in accordance with the strategy of obstetric learning:

After reviewing the literature, the researcher applied the strategy of obstetric learning to the research sample. After pre-tests for research by two teaching units per week. The researcher prepared the educational units for the application of the curriculum of the strategy of obstetric learning following the steps of the strategy. The researchers took into account the number of approved educational units, the timing of the lecture and the reality of (16) educational units spread over (8) weeks. The education units' departments each week are 8. The rate is 20% and the total time was 96. Through (12) educational curriculum, the main section is 28. The rate is 70% and the total time is 336. During the curriculum, the final section is 4. AED is 10% and total times are 48. D. Total educational curriculum.

Table (4) Departmental times and percentage of educational units

<table>
<thead>
<tr>
<th>No</th>
<th>Section</th>
<th>Time</th>
<th>Percentage</th>
<th>Total Educational Unit Times and Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparatory</td>
<td>8.m</td>
<td>%20</td>
<td>96.m</td>
</tr>
<tr>
<td>2</td>
<td>Main</td>
<td>28.m</td>
<td>%70</td>
<td>336.m</td>
</tr>
<tr>
<td>3</td>
<td>Final</td>
<td>4.m</td>
<td>%10</td>
<td>48.m</td>
</tr>
</tbody>
</table>

Dimensional test:

The post-test of the research sample was conducted on Sunday 16/4/2023 after the completion of the duration of the implementation of the obstetric learning strategy which lasted (8) weeks. The researcher was keen to provide the conditions of the post test and its procedures for testing.
**Statistical means:**
The data obtained was processed using a statistical tool that fits the study's objectives to find out the results through the use of the Statistical Pouch (SPSS).

**Results:**
Presentation, analysis and discussion of the results of variations in the variables under consideration for the control group's post and postgraduate tests.

Table (5) The differences between the pre and posttests of the control group in creative thinking and some basic volleyball skills

<table>
<thead>
<tr>
<th>Indicative level</th>
<th>Calculate d t value</th>
<th>Differences std</th>
<th>Difference mean</th>
<th>PostTest</th>
<th>Pre-Test</th>
<th>Measurment Unit</th>
<th>Variables</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>8.159</td>
<td>2.521</td>
<td>4.600</td>
<td>0.995</td>
<td>66.400</td>
<td>Grade</td>
<td>Creative Thinking</td>
<td>1</td>
</tr>
<tr>
<td>0.000</td>
<td>15.308</td>
<td>1.081</td>
<td>3.700</td>
<td>0.718</td>
<td>11.100</td>
<td>Grade</td>
<td>Volleyball Preparation Skill</td>
<td>2</td>
</tr>
<tr>
<td>0.000</td>
<td>16.382</td>
<td>1.720</td>
<td>6.300</td>
<td>1.357</td>
<td>14.500</td>
<td>Grade</td>
<td>Volleyball reception skill</td>
<td>3</td>
</tr>
<tr>
<td>0.000</td>
<td>17.772</td>
<td>1.963</td>
<td>7.800</td>
<td>1.765</td>
<td>15.800</td>
<td>Grade</td>
<td>Transmitter from the bottom volleyball</td>
<td>4</td>
</tr>
</tbody>
</table>

In light of the data extracted by the research sample individuals, table 5 shows the differences in the values of creative thinking variables and some basic volleyball skills (volleyball preparation skill, Reception skill volleyball, transmitter from bottom volleyball). In the pre and posttests of the control group and using the V test of the interconnected samples for the extraction of discrepancies, their calculated calendars (8.159, 15.308, 16.382 and 17.772) respectively appeared smaller than the tabular value of 2.093. The degree of freedom (19) and the significance level (0.05) indicate the randomness of the differences between the pre and posttests of the creative thinking group and some basic volleyball skills.

Presentation, analysis and discussion of the results of variations in the variables under consideration for the pilot group's pre and post-tests
Table (6) The differences between pre and post-experimental tests in creative thinking and some basic volleyball skills

<table>
<thead>
<tr>
<th>n</th>
<th>Variables</th>
<th>Measurement Unit</th>
<th>Pre Test</th>
<th>Post Test</th>
<th>Difference mean</th>
<th>Difference std</th>
<th>Calculate t value</th>
<th>Indicative level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>mean</td>
<td>std</td>
<td>mean</td>
<td>std</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Creative Thinking</td>
<td>Grade</td>
<td>61.550</td>
<td>2.585</td>
<td>71.950</td>
<td>2.605</td>
<td>10.400</td>
<td>3.455</td>
</tr>
<tr>
<td>2</td>
<td>Volleyball Preparation Skill</td>
<td>Grade</td>
<td>7.500</td>
<td>0.827</td>
<td>14.600</td>
<td>0.503</td>
<td>7.100</td>
<td>0.912</td>
</tr>
<tr>
<td>3</td>
<td>Volleyball reception skill</td>
<td>Grade</td>
<td>8.350</td>
<td>1.040</td>
<td>17.150</td>
<td>0.671</td>
<td>8.800</td>
<td>1.322</td>
</tr>
<tr>
<td>4</td>
<td>Transmitter from the bottom volley</td>
<td>Grade</td>
<td>7.900</td>
<td>0.852</td>
<td>18.400</td>
<td>0.598</td>
<td>10.500</td>
<td>1.000</td>
</tr>
</tbody>
</table>

In the light of the data extracted for the research sample individuals, table (5) shows the differences in the values of creative thinking variables and some basic volleyball skills (volleyball preparation skill, volleyball reception skill, transmission from the bottom volleyball). In the experimental group's pre and post tests and using an interconnected sampling test to extract discrepancies, their calculated calendars (13.462, 34.819, 29.772 and 46.957), respectively, are smaller than the table value of 2.093. The degree of freedom (19) and significance level (0.05) indicate the randomness of the differences between the pre and posttests of the experimental group with creative thinking and some basic volleyball skills.

Presentation, analysis and discussion of the results of variations in the variables under consideration for post testing of control and experimental groups.
Table (7) The differences between control and experimental groups in remote testing in creative thinking values and some basic volleyball skills

<table>
<thead>
<tr>
<th>Indicative level</th>
<th>Calculated t value</th>
<th>Pilot Group</th>
<th>Control Group</th>
<th>Variables</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>E</td>
<td>D</td>
<td>E</td>
<td>D</td>
</tr>
<tr>
<td>0.000</td>
<td>8.901</td>
<td>2.605</td>
<td>71.950</td>
<td>0.995</td>
<td>66.400</td>
</tr>
<tr>
<td>0.000</td>
<td>17.856</td>
<td>0.503</td>
<td>14.600</td>
<td>0.718</td>
<td>11.100</td>
</tr>
<tr>
<td>0.000</td>
<td>7.828</td>
<td>0.671</td>
<td>17.150</td>
<td>1.357</td>
<td>14.500</td>
</tr>
<tr>
<td>0.000</td>
<td>6.239</td>
<td>0.598</td>
<td>18.400</td>
<td>1.765</td>
<td>15.800</td>
</tr>
</tbody>
</table>

In light of the data extracted for the research sample, table (7) shows differences in creative thinking values and some basic volleyball skills (preparation skill, reception skill, the skill of the transmission from below) in the dimensional test and as shown in the table above. The nature of the sample members of the control and experimental groups showed differences in the dimensional test. Using the independent sampling test to extract discrepancies, the calculated scale (8.901, 17.856, 7.828, 6.239), respectively, was at a significant level (0.000, 0.000, 0.000 and 0.000), respectively, and a degree of freedom (38), in the post test of the control and experimental groups and for the pilot group.

Discussion of results:

The results of the tests were significant in favor of the post tests, meaning that there are clear significant differences in the tests for creative thinking and skill performance (pre and post) and for the benefit of the post test. The researchers attribute this development to the use of the obstetric learning strategy by members of the experimental group. It included an elaborate visual presentation with a structured process and sequential phases that contribute in one way and another to the process of facilitating learning especially if we know that using this strategy in skill presentation works effectively in presenting and displaying skill excitingly. It stimulates learners' (Singer, 1980, p. 422) senses and increase their ability to visualize skills when applying the strategy during the educational unit, which was confirmed by Snitker Warnold’s " the importance of using diversity in
educational media because of its effective impact on skills learning (Arnold, 1981, p. 78). All of this has contributed to increasing the ability of learners in the pilot group to understand, assimilate and understand skills, all of which are also closely related with the inclusion of senses in learning as a facilitator of learning. Hofstetter and Fox (1995) emphasized that “learners remember (20%) of what they hear and (30%) of what they watch and (50%) of what they hear and watch together and this percentage increases from what they watch in conjunction with voice-over and performance.” Hofstetter and Fox (1995, p. 64).

In addition, when the learner hits the area with high scores, it will lead to a kind of state of pleasure and joy, which prompts the student to make an extra effort to maintain this superiority (as the learner who achieves success in a skill wishes to continue in subsequent attempts) (Mohnsen, 2008).

The importance of using diversity in educational media because of its effective impact on the learning process of motor skills (Arnold, 1981; Singer, 1980).

Conclusions

The study has come up with the following:

1. The strategy of obstetric learning has had a positive impact on the development of creative thinking for students in the second stage students of the Faculty of Physical Education and Sports Sciences.

2. The strategy of obstetric learning has had a positive impact on learning some basic volleyball skills of the study sample.

Recommendations

This work recommends using obstetric learning strategy to develop creative thinking and learn basic volleyball skills.

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