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# THE EFFECT OF USING RECREATIONAL GAMES IN LEARNING THE SKILL OF HANDLING FROM ABOVE IN HANDBALL

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## ABSTRACT

The researcher conducted this study to determine the magnitude of the influence of including recreational games in enhancing the proficiency of overhead handling in handball. The study sought to investigate the impact of including recreational games on the acquisition of aerial handling skills in handball. To elucidate the disparities between acquiring knowledge through recreational games and the conventional educational approach employed in schools for the mastery of aerial ball handling in handball. Regarding hypotheses, there are notable disparities in the pre- and post-measurements between the control and experimental groups, favoring the experimental group. The research methodology focused on the field procedures conducted within the student community of the second intermediate grade at the Great Majar al-Kabir High School for Outstanding Students in Misan Governorate during the academic year 2021/2022. The total number of students in this community was 58, and all of them were included in the research sample. The sample was further divided into a basic sample of 34 students and an exploratory sample of 20 students. The researcher utilized the statistical application SPSS to do appropriate statistical analyses on the research data. The researcher concluded that the experimental group, which used instructional units with recreational games, performed better than the control group that used the traditional technique when learning recreational games in learning the skill of handling from above in handball. The researcher suggests incorporating recreational games as a method for teaching fundamental abilities in handball based on these findings.

**Keywords:** Recreational Games, Learning, Handling, Handball.

## INTRODUCTION

Scientific progress facilitates researchers in providing valuable contributions to society (Moedas, 2018). The success in Olympic tournaments and other championships serves as a strong indication of the ongoing commitment of coaches and researchers to continuously enhance the educational process (Siedentop, Hastie & Van der Mars, 2019). This dedication aims to elevate the level of sports performance and achieve optimal results, ultimately leading to the acquisition of more medals (De Bock et al., 2022). Physical education is a crucial aspect of people's lives and serves as a significant indicator of a country's progress and development (Baena-Morales et al., 2021). Therefore, it is essential to adopt the scientific method as a foundation for further advancements in physical education, specifically in the sport of handball

(Hussein & Kasim, 2022). Utilizing recreational games is an effective approach to teaching sports, as it enables learners to gain abilities in a quicker, more engaging, and more pleasant manner (Mitchell, Oslin & Griffin, 2020). This method follows the principles of progressive information acquisition, starting from easy to difficult and from simple to complicated (Correia et al., 2019). Handball is a popular sport played in international and Olympic events. It captivates a large audience due to the impressive display of technical and aesthetic skills by the players on the field (Chandler, Vamplew & Cronin, 2007). The game showcases high levels of skill, tactical performance, and thrilling situations, which greatly enhance the excitement for both players and viewers (Isbister, 2016). As a result, handball is considered on par with other Olympic sports. Mastery of the fundamental skills of handball is crucial for achieving optimal performance on the field (Ferrari, 2021). These skills serve as the foundation for developing expertise in specific performance abilities (Breivik, 2018). Therefore, it is essential for all players to acquire and master the basic skills of the game in order to excel (Flayyih, 2023). Utilizing contemporary techniques and conducting hands-on experiments in handball fosters the acquisition of motor abilities.

**Search problem :**

Handball is a collective sport that relies on the use of effective learning methods to achieve optimal results (Salih, Hashim & Kasim, 2021). With advancements in physical education and sports sciences, various educational methods and tools have been developed, including recreational games, to enhance physical fitness and improve motor skills in different sports (García-Hermoso et al., 2020). Based on the reference survey and prior research in the field of teaching and handball instruction, researchers have determined that it is necessary to investigate and address the utilization of recreational games for the purpose of acquiring fundamental handball skills (Hussein & Kasim, 2022). The researcher conducted this study to determine the precise impact of using recreational games on the development of top-handling skills in second-grade students at an average high school in Al Majer Al Kaber. The study focused on both outstanding and exceptional students from the Misan Governorate. The significance of this research lies in:

1. Understanding the influence of recreational games on enhancing proficiency in handball's top-level handling skills .
2. Implementing a suspenseful approach in the educational curriculum to alleviate monotony and anxiety caused by traditional instructional methods .
3. Enhancing learner motivation by encouraging students to apply their knowledge in playful and competitive settings, thereby achieving mastery in skill performance.

**Research Objectives**

1. Understanding the influence of recreational games on enhancing proficiency in handball's top-level handling skills .
2. Implementing a suspenseful approach in the educational curriculum to alleviate monotony and anxiety caused by traditional instructional methods .
3. Enhancing learner motivation by encouraging students to apply their knowledge in playful and competitive settings, thereby achieving mastery in skill performance.

**Research Hypotheses**

1. There are significant differences in the pre-and post-tests between the control and experimental groups, with the experimental group showing more favorable results.
2. There are significant differences in the learning outcomes between employing recreational games and traditional learning methods, particularly in the area of dimensional measurement. The experimental group demonstrates superior skills in handling this aspect compared to the control group, resulting in greater benefits for the experimental group.

**Research Areas :**

**Human Areas:** Second grade intermediate students of the school (Great Al Majer Al Kaber High School for Outstanding Students) in Misan Governorate.

**Time Areas:** The period from 14 / 1 /2021 to 10 / 3 /2021.

**Spatial Areas:** School yard (Great Al Majer Al Kaber High School for Outstanding Students) in Misan Governorate .

## METHODOLOGY

**First: Research Methodology:**

The researcher used the experimental method to suit the nature of the research problem.

**Second: Research Community and Sample :**

**Research Community :**

The research community represents the (58) students of the second intermediate grade at the (Great Majar al-Kabir High School for Outstanding Students) in Misan Governorate for the academic year 2021/2022.

**Research Sample:**

The research sample reached (58) students and they were divided into a basic sample of (34) students and an exploratory sample of (20) students and the basic sample was divided randomly into two equal groups of each group (17) students and (4) students were excluded because of their lack of commitment to permanence .

**Means of collecting data and information:**

**Forms :**

- ❖ Expert opinion poll form on determining physical and motor characteristics and choosing the appropriate for each characteristic.
- ❖ Form of educational units using recreational games.
- ❖ Skill test form.

**Physical tests :**

1. The wide jump of stability: (Marqués-Bruna & Grimshaw, 2009)
2. Bending the torso in front of the bottom of the stand: (Waldhelm & Li, 2012).
3. Pushing the medical ball: (Ezzedine, 2001, 36-37)

**Skill test :**

1. Handling skill test from above: (Harris et al., 2011)

**Devices and tools used:**

**Devices:**

- Laptop (LAB- TOB) type (hp), number (1).
- Medical Scale for Weight Measurement number (1).
- Electronic stopwatch, issue (1).

**Tools**:

- Handballs number (4).
- Tape measure.
- Medical ball (3 kg).
- Tape to measure the length.
- Tip Adhesive, issue (2).
- Signs, number (4).
- Whistle, number (2).
- Data Registration Form.

**Homogeneity of the research sample:**

The researcher assessed the homogeneity of the study sample members in the variables that could potentially impact the research outcomes. As indicated in Table 1.

**Table 1:** Shows the homogeneity of the two research groups in variables (age, height and weight)

| Variables | Unit of Measurement | Control | | Experimental | | T |
|---|---|---|---|---|---|---|
| | | M | SD | M | SD | |
| Length | Cm | 158 | 85 | 170 | 83 | 0.666 |
| Weight | Kg | 49.17 | 11.62 | 50.32 | 10.72 | 0.736 |
| Age | Year | 15.5 | 1.29 | 14.12 | 1.19 | 0.264 |

Significant at the error rate of ≤ (0.05) and in front of the degree of freedom (32) and the tabular value of (T) = (2.04)

Based on the data presented in Table (1), it is evident that the calculated value of (T) was lower than the tabular value (T) of (2.04) at a degree of freedom of (32) and a significance level of ≤ (0.05). This suggests that there are no significant differences between the two research groups, indicating the homogeneity of the experimental and control groups in terms of the variables (age, height, and weight).

**Equivalence of the research sample:**

The researcher established equivalence between the two research groups (experimental and control) in the variables being studied. As indicated in Table 2.

**Table (2):** Shows the equivalence of the two research groups (experimental - control) in the physical variables under research n1 = n2 = 34

| Variables | Control | | Experimental | | T |
|---|---|---|---|---|---|
| | M | SD | M | SD | |
| Wide jump of stability | 185.70 | 22.59 | 184.00 | 15.16 | 0.628 |
| Flexibility | 44.64 | 3.82 | 45.58 | 4.65 | 0.119 |
| Medical Ball Push (3kg) | 219.82 | 13.97 | 221.58 | 14.90 | 0.136 |

*Significant at the error rate of ≤ (0.05) and the degree of freedom (6) and the tabular value of (T)) = (2.04)

According to Table (2), it is evident that the computed value of (T) was less than the reference value (T) of (2.04). At a significance level of 0.05 and with 32 degrees of freedom, the analysis suggests that there are no statistically significant differences between the two research groups in terms of physical test results. This verifies that the groups are comparable.

## Steps of search procedures

### Curriculum:

The researcher designed the educational units and presented them to the specialists. Educational units and scientific notes.

- The curriculum consists of (3) weeks and two educational units per week.
- The total number of educational units is (6) educational units .
- Performance of educational units on days (Sunday, Tuesday).

### Exploratory Experience:

The researcher conducted an exploratory study on a sample of the same research community, consisting of 20 students, to ensure the safety of using recreational games in the educational unit. The study also aimed to identify the main obstacles that the researcher may encounter when applying the units to the basic sample on 10/2/2021.

### Pre-test :

The researcher performed a pre-test on both the experimental and control groups for the handling skill on Sunday, 14/2/2021. Prior to administering the pre-test, the researcher provided an explanation and demonstration of the skill to the students, aiming to establish a clear understanding of the test among the research participants.

### Main experience:

The research conducted a fundamental experiment from Sunday 14/2/2021 to Wednesday 10/3/2021 AD, with a frequency of 2 units per week. Each unit lasted for 40 days, and both the experimental and control groups were assigned 6 educational units. The experimental group received instruction through recreational games, while the control group was taught using traditional methods.

**Post-test:**

The researcher administered the post-test to both the experimental and control groups in the skill test being studied, using the same methodology as the pre-test and under identical settings and requirements on 10/3/2021.

**Control group:**

The teacher implemented instructional modules, utilizing the method of explanation and presentation, while instructing the control group in the targeted skill.

**Statistical treatments:**

The researcher has utilized the statistical program SPSS to perform appropriate statistical analyses that align with the nature of the research. These analyses include:

- ✓ Arithmetic mean.
- ✓ Standard deviation.
- ✓ Test (T) for independent samples.
- ✓ Test (T) for associated samples.

**Results**

**Presentation and discussion of results:**

**Presenting the results of the differences between the pre- and post-measurements of the experimental and control groups and discussing them.**

**Table 3:** Shows the arithmetic means, standard deviations and the value of (T) calculated for the pre- and post-measurements for the experimental and control groups.

| Skills | Groups | Pre- test | | Post-test | | T |
|---|---|---|---|---|---|---|
| Handling from above | Experimental | M | SD | M | SD | |
| | | 3.29 | 1.30 | 9.29 | 2.08 | 13.89 |
| | Control | 3.41 | 1.27 | 6.52 | 1.97 | 8.17 |

* Significant at the error rate of ≤ (0.05) and in front of the degree of freedom (17) and the tabular value of (T) = (2.10)

Table (3) indicates notable disparities in the proficiency of handling between the pre- and post-measurements of both the experimental and control groups. This is evident from the calculated values of (T) for the experimental and control groups, which are (13.89) and (6.52) respectively. These values surpass the tabular value (T) of (2.10). The researcher attributes this to the efficacy of the educational units that incorporate recreational games. The proposed educational units, which encompass a range of recreational games, have successfully fostered a sense of enjoyment, pleasure, and competition among students. Consequently, students' motivation towards the learning process has increased, resulting in an effective acquisition of the skill of handling from above. According to Michalski, Szpak and Loetscher (2019), the utilization of leisure games is beneficial for acquiring and improving motor skills. These games not only enhance learning but also introduce elements of suspense and competitiveness into the process (Uhm, Kim & Lee, 2023). The researcher attributes the positive impact of the control group's results to the units followed in the American method. These units affected the students' responses to the learning process due to training, practice, and training within the

program. Consequently, the control group students showed an improvement in their performance level for the skill being researched in the learning process. According to Beatty and Janelle (2020), motor learning refers to the improvement in performance or motor behavior that occurs due to training and practice, rather than being influenced by factors such as maturity, fatigue, stimulant drugs, or other temporary factors that affect performance or motor behavior (Guest et al., 2021). Hence, the veracity of the first hypothesis, asserting that there exist substantial disparities in the pre-and post-measurements between the control and experimental groups, favoring the experimental group, is under scrutiny.

**Presentation and discussion of the results of the differences between the two-dimensional measurements of the experimental and control groups:**

**Table 4:** Shows the arithmetic mean, standard deviation and calculated value (T) for the experimental and control groups

| Skills | Measurement Unit | Experimental | | Control | | T | Sig |
|---|---|---|---|---|---|---|---|
| | | M | SD | M | SD | | |
| Handling from above | degree | 9.29 | 2.08 | 6.52 | 1.97 | 9.71 | 0.000 |

*Significant at the error rate of ≤ (0.05) and in front of the degree of freedom (32) and the tabular value of (T) = (2.04)

Table (4) demonstrates significant disparities in dimensional measurement between the experimental and control research groups, favoring the experimental group in acquiring the skill of handling from the top handball. This is evident from the calculated value of (T) which amounts to (9.71), surpassing the tabular value of (T) which is (2.04). The researcher attributes the progress observed among the students in the experimental group to the use of recreational games in the educational units. This is due to the effective learning that occurs when students are provided with skill content through recreational games. This approach facilitates faster and more engaging skill acquisition, creating a competitive learning environment. Kingsbury (2022) observed that the utilization of small games facilitates the acquisition of fundamental skills in a more expedient and engaging manner. This is due to the inclusion of competitive and suspenseful elements, which are crucial for achieving proficiency and making significant progress (Weinberg & Gould, 2023). The researcher posits that incorporating recreational games into the proposed educational units effectively captured the students' attention. This approach also aimed to enhance students' motivation and prevent them from feeling fatigued during the learning process. Additionally, the experimental group of students were exposed to situations similar to those encountered in the games, which resulted in their outperforming the control group that followed the traditional program. There are notable distinctions in the learning process when playing recreational games compared to traditional learning methods. Additionally, there is a noticeable improvement in the ability to manage telemetry data in the experimental group compared to the control group, favoring the experimental group.

## CONCLUSIONS

The researcher reached the following conclusions based on the research objectives, hypotheses, research sample limitations, statistical treatments, and the results obtained:

1. The implementation of educational units utilizing recreational games has a distinct and beneficial effect on the acquisition of the skill of handling from the top. In comparison, the traditional educational units employed by the control group also positively contributed to the learning of this talent.
2. The experimental group, which utilized the proposed instructional modules incorporating recreational games, demonstrated superior performance compared to the control group that employed the traditional method when acquiring the competence of handling from an elevated position.

## RECOMMENDATIONS

Based on the findings and deductions of the investigation, the researcher suggests the following:

1. Utilizing recreational games to instruct the remaining fundamental abilities in handball .
2. Conducting additional studies and research on the utilization of leisure games in the realm of skills education inside institutes and colleges of physical education to enhance the educational process.

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