THE IMPACT OF EXERCISES USING THE VISUAL LEARNING STRATEGY ON LEARNING SOME BASIC GYMNASTICS SKILLS FOR FEMALE STUDENTS

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ABSTRACT
The process of equipping learners with modern teaching strategies is one of the primary concerns of those responsible for the education system. This requires awareness of teachers' knowledge of these strategies to ensure proper planning and execution in the classroom. The significance of this study lies in the following points:

- *The research aims to design exercises based on the visual learning strategy for teaching some basic gymnastics skills to female students.*
- *The researcher hypothesizes a positive impact of the visual learning strategy on learning some basic gymnastics skills among female students.*
- *The researcher utilized an experimental approach with pre- and post-tests in accordance with the nature of the study's problem.*

The research population included 26 female second-year students from the College of Physical Education and Sports Sciences at the University of Kufa. A random sample of 20 students was selected to represent the research sample. The researcher concluded that the visual learning strategy has a significant positive impact on learning some basic gymnastics skills for female students.

KEYWORDS: *Visual, Learning and Strategy.*

INTRODUCTION

The modern era is characterized by scientific advancements in various fields related to student care and development. Modern education seeks to nurture students physically, mentally, and spiritually, emphasizing justice, equality, cooperation, and teamwork to prepare the younger generation as responsible citizens. Recent studies and research on the components of the educational process have highlighted the importance of its success as a means of transferring knowledge to students. Traditional rote learning methods, where students merely receive information, are being replaced by innovative teaching methods that encourage students to acquire experiences actively.[1]

Physical education is a vital domain within the educational system, preparing individuals physically, skillfully, intellectually, and psychologically. Many countries and institutions strive to improve their educational programs by adopting innovative and effective teaching models. Modern teaching strategies aim to organize and direct the educational environment to achieve learning goals efficiently. Among these strategies, the "interleaving waves" strategy has shown notable development, enhancing learners' engagement and positivity. This approach focuses on cognitive processes, enabling learners to utilize information and problem-solving skills to address educational challenges or complete incomplete knowledge frameworks.[2]

The visual learning style organizes complex information for students. Using colors, images, and sequential visual scenes helps students recall and organize thoughts clearly, facilitating quicker and more effective learning. Rhythmic gymnastics is one of the sports taught in physical education faculties, requiring high-level skill performance. Therefore, adopting teaching strategies that actively involve students in the learning process is crucial. The goal is not only to impart information but also to develop students' scientific and creative thinking through varied activities and resources.

The significance of this research lies in utilizing a modern strategy aligned with advancements in teaching and learning, enhancing students' critical thinking skills, and addressing individual differences to support positive engagement with the educational environment.

RESEARCH PROBLEM
Given recent global changes and challenges in education, there is a growing need to shift towards an approach that emphasizes learners as active knowledge seekers. Despite the research highlighting the learner's role in the educational process, achieving this transformation requires additional effort. This study aims to redesign educational units for teaching basic rhythmic gymnastics skills using visual learning to simplify educational concepts, enabling students to form mental images of skills and connect principles effectively. Thus, the researcher seeks to examine the impact of the visual learning strategy on teaching some basic gymnastics skills to female students.

RESEARCH OBJECTIVES
1. To design exercises using visual learning to teach some basic rhythmic gymnastics skills to female students.
2. To identify the impact of visual learning exercises on learning some basic rhythmic gymnastics skills among female students.

RESEARCH HYPOTHESIS
- The exercises based on visual learning positively impact learning some basic rhythmic gymnastics skills among female students.

Research Fields
- Human Domain: Second-year female students, College of Physical Education, University of Kufa.
- Time Domain: From October 10, 2024, to December 5, 2024.
- Spatial Domain: The indoor gymnastics hall.

RESEARCH METHODOLOGY
The term "methodology" refers to "methods, procedures, or approaches used in research to collect data, resulting in interpretations, explanations, or predictions related to the studied subject".[3] Based on this, the researcher adopted an experimental approach, designing two equivalent groups (control and experimental).

RESEARCH COMMUNITY AND SAMPLE
Selecting the research sample is one of the most critical steps in research, as it depends on the study's nature and objectives.[4] The research community consisted of 26 second-year female students at the University of Kufa for the 2024-2025 academic year. A random sample of 20 students was divided into two groups: 10 students in the control group and 10 in the experimental group. An additional four students were used for pilot studies.

SAMPLE HOMOGENEITY

To ensure the sample's uniformity and avoid variations that might influence the results, the researcher measured growth indicators (age, height, weight) and analyzed these variables statistically using the skewness coefficient. Values ranged within ±3, indicating a well-distributed sample.

Table 1. Homogeneity of the Two Groups in Variables (Age, Height, Weight)

Variables	Unit	Mean	Median	Standard Deviation	Skewness
Age	Years	19.4	19	4.3	0.21
Height	cm	155	153	3.98	1.50
Weight	kg	50.78	50	5.23	0.49

DATA COLLECTION TOOLS AND DEVICES USED IN THE RESEARCH

1. **Data Collection Tools**
   - Opinions of experts and specialists.
   - Testing and measurement tools.
   - Statistical tools.
2. **Devices and Tools Used in the Research**
   - Electronic calculator (laptop), 1 unit.
   - Electronic stopwatch, 2 units.
   - Plastic markers, 10 units.
   - Gymnastics hall.
   - Rubber bands.
   - Adhesive tape.
   - Forms for recording test results.
   - Medical scale for weight measurement.

Field Procedures

SCIENTIFIC VALIDITY OF TESTS

1. **Test Validity:** The researcher relied on skill tests globally recognized for assessing performance. Suitable tests for the sample were selected, achieving high validity and reliability.

Tables 2. Show scientific validity of tests and reliability

Test	Reliability	Validity
Human Wheel Skill Test	0.88	0.92
Handstand Skill Test	0.82	0.86
Forward Hand Spring Test	0.85	0.94

2. **Test Reliability:** The tests were applied and reapplied on four students from the research community but not included in the main sample.

3. **Test Objectivity:** The tests were reviewed by experts in teaching methods and gymnastics, achieving an agreement rate of 84-89%, which is scientifically acceptable.

PILOT STUDY

The researcher conducted a pilot study on October 13, 2024, involving four students to:
- Ensure the validity of tools and devices.
- Verify team competency in conducting measurements and recording results.
- Assess the appropriateness of tests for the sample.
- Identify potential challenges and solutions.

PRE-TEST MEASUREMENTS

- Pre-tests were conducted for both the control and experimental groups on October 14, 2024, in the indoor gymnastics hall under consistent conditions to ensure reliability for later comparisons.

MAIN EXPERIMENT

The main experiment aimed to explore the impact of visual learning on teaching some basic gymnastics skills. It comprised six instructional units, each lasting 35 minutes, conducted once a week from October 15, 2024, to November 28, 2024. Visual learning techniques included:5

- Video demonstrations of basic gymnastics skills with technical explanations for each skill stage.
- Illustrative drawings highlighting critical stages with a focus on red-marked key points after video demonstrations.

POST-TEST MEASUREMENTS

Post-tests were conducted on December 1, 2024, using the same sequence and conditions as the pre-tests.

RESULTS

- **Control Group Results**

Table 3. Show control Group Pre- and Post-Test Results

Variables	Pre-Test Mean		Post-Test Mean		t-Value	Significance
	Mean	Std. Deviation	Mean	Std. Deviation		
Human Wheel Skill	3.43	1.324	5.62	1.202	3.721	0.001**
Handstand Skill	3.92	0.986	5.22	0.932	3.302	0.007**
Forward Hand Spring Skill	3.82	1.223	5.13	0.945	3.022	0.006**

- **Experimental Group Results**

Table 4. Show experimental Group Pre- and Post-Test Results

Variables	Pre-Test Mean		Post-Test Mean		t-Value	Significance
	Mean	Std. Deviation	Mean	Std. Deviation		
Human Wheel Skill	3.52	1.122	6.24	0.922	5.045	0.000
Handstand Skill	3.12	0.991	6.65	0.974	6.114	0.000
Forward Hand Spring Skill	3.25	1.029	7.1	0.993	6.811	0.000

- **Post-Test Comparison Between Groups**

Table 5. Show Post-Test Results for Control and Experimental Groups

Variables	Pre-Test Mean		Post-Test Mean		t-Value	Significance
	Mean	Std. Deviation	Mean	Std. Deviation		
Human Wheel Skill	5.62	1.202	6.24	0.922	2.831	0.003
Handstand Skill	5.22	0.932	6.65	0.974	1.949	0.004
Forward Hand Spring Skill	5.13	0.945	7.1	0.993	3.071	0.000

DISCUSSIONS

From observing Tables (3-4), it is evident that both the experimental and control groups improved in learning the basic gymnastics skills under study. While any method of instruction can facilitate skill learning, the rate of learning differs based on the method's efficiency in conveying the material to students. The control group showed improvement due to the traditional instructional method used by the instructor. The curriculum was well-planned and scientifically structured, leading to effective performance outcomes. The placing students in engaging educational environments helps them achieve optimal performance through systematic and well-designed learning experiences.[6]

Regarding the experimental group, Table (4) indicates a significant improvement in skill performance during the study period. The researcher attributes this progress to the designed exercises incorporating tools based on the visual learning strategy. The aim of educational curricula is to improve performance through practice and repetition, as motor learning hinges on equipping learners with a set of skills that enable them to achieve high levels of performance .[7]

The researcher concludes that the visual learning strategy, used with the experimental group, which includes written texts, concept maps, and illustrative diagrams, significantly enhanced the students' cognitive retention and information recall.[8] Visual aids provide critical information related to the skills under study. Relying solely on verbal methods, especially during feedback, without utilizing visual resources, can negatively affect skill development. Effective learning requires appropriate stimulation and precise observation.[9]

CONCLUSIONS

1. Utilizing the visual learning strategy positively impacts overcoming motor learning difficulties among female students.
2. The experimental group using the visual learning strategy outperformed the control group in developing basic skills.
3. The visual learning strategy effectively improved the acquisition of basic gymnastics skills for female students.

RECOMMENDATIONS

1. Incorporate the visual learning strategy in teaching to enhance engagement and learning effectiveness.
2. Conduct similar studies using the visual learning strategy on different samples and sports.
3. Transition from teacher-centered to learner-centered methods for better skill acquisition.

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