

## **The effect of various exercises in some cognition of sense \_ kinesthetic for fifth students of primary school**

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### **Abstract**

The purpose of this paper is to prepare various exercises to develop kinesthetic sense for fifth students, and identify the effect of various exercises on developing kinesthetic sense for students of the fifth grade of primary school. The researcher used the experimental method because it is more appropriate with the nature of the problem by designing equivalent groups (experimental and control) with pre and post-tests. The study and the two researchers used the experimental method in the manner of two equal groups with two tests, before and after, as the research community was determined by the fifth grade students in (Al-Taqwa Private Primary Mixed School) affiliated to the General Directorate of Education Baghdad / Karkh III for the academic year 2021-2022, and the research community reached (35) A male and a female student, as for the research sample, it was chosen in an intentional way. The exploratory experiment sample consists of (7) male and female students and consists of two divisions (A - B) (A-10) male and female students, and (B - 10) male and female students. The two researchers used the sense tests \_ The kinesthetic suitability of the nature of the research, and the educational units that included (16) educational units were implemented for the reality of (2) educational units per week, and the time of each educational unit was (40) minutes after the completion of the units' implementation, post-tests were conducted for the research sample, and statistical methods were used appropriately for data processing. One of the most important results reached by the researcher is that: The various kinesthetic exercises that the experimental group were exposed to had a positive and effective effect on the learning of the fifth grade students, and the traditional program for the physical education lesson in the school, which the teacher, led to learning, exposed to the control group but in a lesser way than the experimental group accompanied by various exercises. One of the most important recommendations recommended by the researchers is that: Paying attention to the various exercises within the physical education lesson because of their effective impact on students' learning, and conducting more research on the use of various kinesthetic exercises on other samples.

### **Introduction:**

This century was marked by great interest in physical education lessons, due to the great health, physical and moral effects of their students, and for this reason it occupied a great position in the programs of developed countries and became an urgent need in the life of new societies, because it is an integral part of community education and contributes, along with the curricula, to the development of the student's entity. It achieves comprehensive and balanced development for them by providing them with sufficient opportunities to acquire the experiences and skills they need during their activities that are enjoyable and enjoyable for all students. In addition, for that, he found the teachers of physical education and education together side by side in the search for scientific assets on which to base their theories to develop the physical education lesson. The various exercises are among the means and methods used in teaching students, as they aim to prepare and develop the kinesthetic skills of various types of sports activities such as ball games and athletics (Muhammad. 2019) as they are characterized by diversity such as physical, harmonious and skill exercises and have a prominent role in teaching these students to various types of activities Sports and public health, and the performance of exercises are linked to kinesthetic capabilities, by exciting the organs in the muscles and joints, as it provides the mind with information about what parts of the body should do when performing any skill. His skill level, and it is considered a source of pleasure, its effect is clear in renewing their activity, and increases the excitement of the students, and strengthening their personalities by providing them with noble qualities and ideals, and providing students with knowledge and concepts in an interesting and endearing manner. It aims to control the students and make them accustomed to do the

work automatically, in a regular and accurate manner it aims to prepare and develop kinesthetic-sense skills for various types of sports activities, and all this is done by developing students' cognition and increasing their awareness, understanding and harmony while performing various exercises. By noting the two researchers of previous studies the lack of use of various exercises in sense \_ kinesthetic abilities, so the researcher relied on an educational program consisting of various exercises as a goal to break out of the norm in the method used to produce the physical education lesson and its impact on developing the sense \_ kinesthetic abilities of the students in the class fifth primary

**Research problem:**

It is summarized in the use of various exercises in the development of cognitionsense-kinesthetic and an attempt to change the traditional method used in producing the physical education lesson in the primary stage

**Research objective:**

- Preparing various exercises to develop abilities sense \_ kinesthetic for fifth students.
- Identifying the effect of various exercises on developing abilities sense \_ kinesthetic for students of the fifth grade of primary school.

**Research hypotheses:**

**Research fields:**

- Human field: Fifth grade students in Baghdad governorate
- Time field: 20/12/2021 to / 3/5/2022
- Spatial field: (the courtyard of Al-Taqwa Private Primary Mixed School, Baghdad Governorate)

**Research methodology and field procedures:**

**Research Methodology:**

The researcher used the experimental method, "and it is one of the basic approaches that seek to collect data from members of the community in an attempt to determine the current state of it with a specific variable or variables" (Allawi and Ratib.1999) that is, it is "a reliable and controlled change of the specific conditions of an accident, and their interpretation (Mahgoub.2002) because it is more Appropriateness with the nature of the problem by designing equivalent groups (experimental and control) with pre and post-tests.

**Community and sample research:**

Students determined the research community in the primary stage - fifth grade - for the academic year 2022-2021 in the governorate of Baghdad. As for the research sample, it was chosen from one of the schools included in the research (Al-Taqwa Private Elementary Mixed School), which numbered (35) male and female students. The sample was divided into two groups, the group formed the experimental group consisted of (10) male and female students, and the control group consisted of (10) male and female students. The two researchers made homogeneity of the research sample with the variables (height, weight, gender) and the others will be excluded according to the variables.

**Devices, tools and means used in the research:**

- Arab and foreign sources
- Exam results registration form
- The internet
- Personal interviews
- The sense \_ kinesthetic test

**Tools and devices**

- ropes and hoops
- medical scale
- tape measure
- medicine balls
- whistle
- stopwatch
- Shawakhs
- A laptop

**Field research procedures:**

**Identifying cognition sense \_ kinesthetic**

The two researchers identified the kinesthetic cognition and presented them to the experts. The variable that obtained (80%) of the experts' agreement was accepted. The most important variables were identified (cognition of the sense of place for the skill of handling, perceiving a sense of time for the skill of handling, perceiving a sense of time for the skill of defensive moves Forward and side,

sense of place for the skill of defensive moves forward and to the side, sense of time for the skill of simple deception without the ball) "(Saleem .2016).

**Identifying the sense \_ kinesthetic tests:**

After reviewing the scientific sources, the two researchers prepared a questionnaire for the skill cognition tests and presented it to the experts, which are standardized tests used for this cognition.

Table (1) Shows the sense \_ kinesthetic cognition adopted in the research that was presented to the experts

No.	Test name	The purpose of the test	percentage
1	sense cognition in place for a passing skill	Measuring sense cognition by passing through space	%100
2	sense cognition by distance to passing skill	Measuring sense cognition by passing through distance	%88
3	sense cognition in time for the skill of defensive moves forward and side	Measurement of sense cognition by defensive movements through time	%86
4	sense cognition of the place for the skill of defensive moves forward and to the side	Measure sense cognition by defensive moves through space	%90
5	sense cognition in time for the skill of simple illusion without the ball	Sense cognition is measured by deception through time	%87

**Main experiences:**

**Pre-tests:**

After completing the exploratory experiment, the two researchers conducted the pre-test on 19/1/2022.

**Preparation and implementation of educational units:**

The two researchers prepared the educational units for the various exercises, depending on the sources and references and their personal experiences. The application of the educational units to the experimental group was started on 27/ 2/ 2022, and the details of the educational units were as follows

- Duration of application of the educational units (8 weeks)
- Number of educational units per week (2)
- Daily units Sunday and Wednesday of every week
- The total number of educational units is (16) educational units
- Teaching unit time (40 minutes)
- Time of the main section of each educational unit (25) minutes

The vocabulary of the educational unit of the experimental group was implemented by the teacher of Al-Taqwa Private Elementary Mixed School, with the help of the assistant work team and under the direct supervision of the two researchers, and some things were taken into account in the development of the educational units as follows:

- Moving from easy to difficult in the application of the educational units.
- Achieving each exercise that was used to achieve the objectives of the educational unit.
- The members of the control group used the educational units prepared by the physical education teacher in the school with the same number of educational units as the control group and at the same time.

**Post-tests:**

The two researchers, with the help of the assistant team, conducted the post-tests of the research sample after completing the application of the educational units for the various exercises on the 5/5/2022 day the tests were held in the same conditions as the pre-tests.

**Statistical methods:** The search data was processed through the Statistical Package for the Social Sciences (SPSS).

**Presentation, analysis and discussion of the results:**

**Presentation and discussion of the results of the pre-and post-tests of the experimental and control groups for the cognition tests sense \_ kinesthetic**

Table (2) shows the mean means, standard deviations, and the calculated t-value between the pre-and post-tests of the sense kinesthetic control group.

Variables	Pre-test	Post-test	arithme tic	standar d	T value calculate	Type sig
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	Mean	standard deviation	Mean	standard deviation	mean of difference	deviation of differences	d	
cognition sense of place for the skill of handling	0,8	0,788	2,3	0,948	1,5	0,707	6,726	sig
cognition sense of distance for handling skill	2,2	1,032	3,6	1,505	1,4	1,074	4,129	sig
cognition sense of time for the skill of defensive moves forward and to the side	3,6	1,577	8	2,108	4,4	2,270	6,136	sig
cognition sense of place for the skill of defensive moves forward and to the side	6	1,632	8,5	4,062	2,5	1,362	5,813	sig
cognition sense of time the skill of deception by changing direction	19,5	1,269	12,7	4,498	6,8	3,626	5,933	sig
The tabular T value was (1,833) under the significance level (0.05) and the degree of freedom(9)								

Table (3) shows the (calculated-t) means, standard deviations, and a value between the pre and post-tests of the experimental group for cognition sense kinesthetic

Variables	Pre-test		Post-test		arithmetic mean of difference	standard deviation of differences	T value calculated	Type sig
	Mean	standard deviation	Mean	standard deviation				
cognition sense of place for the skill of handling	1	0,666	4,6	0,516	3,6	1,207	9,448	sig
cognition sense of distance for handling skill	2,3	1,251	8,7	2,213	6,4	1,633	12,403	sig
cognition sense of time for the skill of defensive moves forward and to the side	4,6	2,319	17,2	1,751	12,6	3,955	10,08	sig
cognition sense of place for the skill of defensive moves forward and to the side	6,8	2,149	17	1,763	10,2	2,686	12,014	sig
cognition sense of time the skill of deception by changing direction	19	1,154	9,1	0,994	9,9	2,684	11,674	sig
The tabular T value was (1,833) under the significance level (0.05) and the degree of freedom(9)								

Table (4) shows the (calculated-t) the means, standard deviations, and a value between the post-tests of the experimental and control groups for cognitions sense kinesthetic

Variables	Control		Experimental		arithmetic mean of difference	standard deviation of differences	T value calculated	Type sig
	Mean	standard deviation	Mean	standard deviation				
cognition sense of place for the skill of handling	0,9	0,737	4	0,666	3,1	0,994	9,872	sig
cognition sense of distance for handling skill	2,3	0,948	4,8	1,549	2,5	1,264	6,265	sig

cognition sense of time for the skill of defensive moves forward and to the side	4,6	2,503	13,1	1,791	8,5	2,715	9,906	sig
cognition sense of place for the skill of defensive moves forward and to the side	7	2,160	13,3	2,311	6,3	2,110	9,445	sig
cognition sense of time the skill of deception by changing direction	18,7	1,159	11	0,816	7,7	2,429	10,026	sig
The tabular T value was (1,833) under the significance level (0.05) and the degree of freedom(9)								

**Discuss the results**

With regard to tables (2,3,4), it is clear that there are significant differences between the scores of the pre and post-tests, for both the experimental and control groups, and in favor of the post-test in the sense \_ kinesthetic tests. And instructions and feedback, which increased their desire to compete with the students of the experimental group, which achieved positive results in the post-tests, "Using a variety of exercises (skill, physical, compatibility) led to the development of working muscles and that the diversity of exercises works to acquire physical and skill capabilities."(Muhammad. 2019) The various exercises provided diversity in the exercises and gave rich and varied experiences through practices and situations that targeted the sense-kinesthetic abilities, which led to the development of many sense-kinesthetic skills that qualify them to match the sense-kinesthetic in the future and take into account their circumstances, and this was confirmed by a study (Al-Metwally.2014)

The current study agrees with the study "that the proposed program for sense-kinesthetic education has a positive effect on the level of sense-kinesthetic and cognitive development" (Rahman and Dayem.1999).The two researchers believe that the use of exercises performed in a manner consistent with the nature of skillful performance using muscle groups working in the same skill had an effect on improving physical attributes and thus improving the level of sense-kinesthetic skills, and this is consistent with that "the movements that he performs The player requires sufficient strength, accompanied by appropriate speed and good flexibility...and thus the performance is consistent and coordination is a more accurate concept of agility" (Lazeem.2004), and we can also attribute this to the exercises used, as "sees that any activity related to the functional organs of the athlete, especially compatibility, as it requires many adaptations, including neuromuscular adaptation, and adaptation occurs by stimulus doses and the type of exercise" (jack: 1994), This requires supporting the use of various special exercises, the most important of which is the ability to correct errors in a proper manner, and this is consistent with what was mentioned However, the use of various exercises had a positive effect in improving kinesthetic-sense compatibility, as stated by (Mahjoub 2002) "The exercises lie in operating the largest possible number of muscles with the improvement of the old skill and the development of physical fitness elements for the number of skills and access to automatic compatibility, and they pointed out the importance of Various exercises and games in order to improve the abilities of the students. They explained that the practice of kinesthetic activity works as a means of physical growth as well as the development of the students' kinesthetic skills and abilities. This was confirmed by the study (Faeq& Dr. Iqbal-Hussein. 2022) The student's behavior is characterized by activity, desire and vitality in a number of situations, and the researchers believe that the use of various exercises and sense-kinesthetic as a renewal of the physical education lesson in primary schools contributed to achieving a greater impact in developing and improving sense-kinesthetic skills. Thus, we have verified the effect of various exercises in learning some sense-kinesthetic skills for fifth-grade students.

**Conclusions and Recommendations:**

Based on the results of the research reached by the two researchers, the following conclusions were reached:

**Conclusions**

- The various exercises incognitionsense \_ kinesthetic exercises that the experimental group were exposed to had a positive and effective effect on the learning of the fifth grade students.
- The traditional program for the physical education lesson in the school, which the teacher, led to learning, exposed to the control group but in a lesser way than the experimental group accompanied by various exercises.

**Recommendations:**

Under the conclusions reached by the researchers, they recommend the following:

- Paying attention to the various exercises within the physical education lesson because of their effective impact on students' learning.

- Conducting more research on the use of various exercises incognition sense \_ kinesthetic exercises on other samples.

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