

Effectiveness of Guided Games to Develop Harmonic Abilities Among Preparatory Children

فاعلية الألعاب الموجهة في تنمية القدرات التوافقية لدى أطفال المرحلة التحضيرية

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Abstract:

The aim of the proposed program is to develop coordination skills, particularly dynamic balance. The researcher relied on the experimental method with only one group. The study sample consisted of 34 boys and girls aged between 5 and 6 years. Prior to this, the proposed program was presented to a group of experts in the field. After implementing the proposed program and conducting post-tests for the study, the results showed that directed games contribute to the development of dynamic balance

Keywords: preschool children; coordination skills; dynamic balance; directed play.

الملخص:

هدف البرنامج المقترح إلى تنمية القدرات التوافقية وبالأخص التوازن المتحرك، هذا ولقد اعتمد الباحث على المنهج التجريبي بمجموعة واحدة فقط، تكونت عينة الدراسة من 34 طفل وطفلة تتراوح أعمارهم ما بين 5 و 6 سنوات، قبل هذا تم عرض البرنامج المقترح على مجموعة من الخبراء في المجال، بعد تطبيق البرنامج المقترح وإجراء الاختبارات البعيدة للدراسة اسفرت النتائج ان الألعاب الموجهة تساهم في تنمية التوازن المتحرك.
الكلمات المفتاحية: أطفال ما قبل المدرسة؛ القدرات التوافقية؛ التوازن المتحرك؛ اللعب الموجه.

1. Introduction

Childhood is one of the most important periods in the formation of a child's personality. It is a very sensitive stage in the child's development in all aspects, whether motor, psychological, as well as social and emotional. Preparatory children (5-6) years are characterized by excessive energy, random movements

and inability to use their internal energies. On the other hand, their ability to learn is very high. Childhood is the pillar of the future. Taking care of children at this sensitive age is the rule on which their healthy upbringing is based in their different stages of development. This stage instills the first seeds of a child's personality, habits, attitudes, abilities and talents grow. Children are able to accept influence and guidance. It is also a vital period for the development of various motor, cognitive and mental abilities. It is the phase of continuous motor activity that is dissolved in the huge energy that children have because this energy is one of the most important manifestations of children's motor behavior (Saadi, 2004, p. 19)

Childhood plays an important role in the development of a child's personality through the experiences they experience and interact with them while playing.

The reality of playing for a child in his daily life is to satisfy himself, spirit and mind. (Al-Abani, 2017, p. 69)

Through play, he interacts with others, discovers life and gains new experiences about his own skills and other children in order to create his own world full of exploration, imagination and movement. It transforms a big world into a small world of its size. Creativity appears in children in their games, stories, drawings and in the use of tools to achieve new purposes. This confirms the role of play in children's creativity and showing their talents. (Noor, 1986, p. 06)

Play is an absolute necessity for children at this stage. It helps build the child's personality psychologically, socially and physically. (Watson & Lindgren, 2004, p. 14)

Motor abilities or traits are characteristics that an individual acquires from the surrounding environment, or they may exist innately. They develop according to the individual's neurological, sensory, and cognitive capabilities through training and practice. These abilities primarily rely on motor control,

which is achieved through the central nervous system's ability to send precise signals to the muscles to accomplish motor tasks (Ghoual et al., 2024, p. 156).

Guided play situations are practical sensory experiences and represent an important dimension in

Attributing meaning to a motor action is an act that involves a "semantic feature" ("Seme"), a classical term whose broad scope has been highlighted by semiology scholars. Based on this, Parlebas employed the term "motor" (or "praxic") semantic feature to describe a set of skills that are considered potential indicators of motor action and are taken into account by the individual performing the movement (Turki & Bouabdallah, 2024, p. 236).

Guided games are not concerned with compensating for the deficiency or correction of a specific motor function. Rather, they aim to deal with the body and soul in a holistic manner by taking advantage of the available possibilities to achieve a coordinated reception and transmission of a body and to feel the body in a good place and time.

This topic has dealt with several studies, including the study (Dheifallah, et al., 2024, p. 349), which confirmed the importance of directed play Elementary among -school children and its role in improving children's consensual abilities, including moving balance. The study (Nagham, 2010) also confirmed the need to rely on motor games programs to develop children's consensual abilities, including moving balance. This study suggested a movement program to develop fixed and moving balance. Karkoush (2017) also stated that through the movement games program, children become able to control their body balance. In his study, he mentioned (Laghrou, 2019) in his study that development The ability of moving balance enables children to learn new motor skills and make it easier for them to implement and adapt to them quickly. Educational methods also play an important role in the child's sensory, cognitive, and psychosocial

development by relying on special directed and targeted motor programs or through traditional methods such as memorization, others, and modern methods, as stated (Khedir, 2018) in her study that early childhood is one of the most important stages of human life due to its flexibility and ability to learn psychological, sensory and motor skills, including moving balance.

From this point of view, the idea of our research emerged, which is to propose a program using games aimed at developing consensual abilities (moving balance) among preparatory children.

Research Question: Does a program of guided play activities significantly improve mobile balance abilities in preparatory children when comparing pre-test and post-test measurements?

We hypothesize that there are indeed statistically significant differences between these assessments, specifically in favor of the post-test results. The primary objective of this investigation is to empirically verify these potential differences in mobile balance ability development.

The significance of this study lies in its potential contributions to multiple aspects of early childhood development. This research can contribute to achieving some of the goals of motor education in the development of children's adaptive abilities, improving their body image and expression. Additionally, through guided play, children acquire new concepts and knowledge. Furthermore, this study highlights the importance of guided play in the lives of preschool children, providing evidence-based insights for educational practice.

2. Identify key concepts:

2.1. directed play

idiomatic definition:

It is the planned play in which the guide intervenes in determining the stage of play and choosing playing tools to suit the child's age and previous experience (Al-Mahamhi, 2005, p. 76)

Procedural definition:

It is a set of organized motor activities subject to their own rules, under the supervision of a teacher or educator in order to achieve the desired goals of these activities.

2.2. consensual capabilities:

Procedural definition:

It is the ability to control motor postures, control the speed of the characteristics of the movements performed and analyze their results by the central nervous system.

2.3. preparatory education children:

It is the child who is enrolled in kindergarten or preparatory departments in primary schools.

2.4. moving balance:

idiomatic definition

Balance may appear as the ability to maintain motor performance in dynamic (moving) conditions with or without support. (Kharbit, 2018, p. 179)

Procedural definition:

It is the ability to maintain and control a certain position of the body during motor performance. This requires good control of the organic systems in terms of muscle and nerve.

3. Method and tools:

3.1. Study Methodology:

Every research study follows a specific methodology to examine a given problem. "Research methodology is an objective approach adopted by the researcher to study a phenomenon with the aim of diagnosing it, defining its dimensions, identifying causes, exploring solutions, and reaching generalizable and applicable findings (Mehoubi & Hachman, 2023, p. 143)

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

3.2. The first exploratory experiment:

The exploratory study is considered the fundamental basis for building all research, and it is a basic and important step in scientific research, as through it the researcher can experiment with his research methods and ensure their safety, accuracy, and clarity. (Elbahi, 2000, p. 83) It is advisable before starting the research procedures, especially in field studies, to conduct a reconnaissance study to identify the conditions in which the research will take place (Mansi, 2003, p. 61).

This experiment was conducted on September 22, 2019, by applying an educational unit chosen by the student researcher to a random exploratory sample in order to determine:

- The suitability of the content of the proposed program and its suitability to the research sample, the researcher's practice in applying the proposed program, the availability of security and safety factors.

- Knowing the problems and difficulties that the researcher may face when implementing the experiment.
- Ensure that the tests are appropriate for the sample students.

3.3. The second exploratory experiment:

The purpose of this experiment is to confirm the validity and stability of the test (Psychometric Properties) on 24/09/2019.

This study was conducted on a sample of (08) children who were randomly selected from the research population and not from the basic study sample. After 09 days of applying the first experiment, I mean, on 03/10/2019, the test was repeated on the same sample, taking care to meet the same conditions and conditions that were available in the first trial

A group of children were excluded for the following reasons:

(08) Children because the survey test was applied to them to confirm the validity of the tool, and two children for practicing sports outside (regular) school.

3.4. Research samples:

It is part of the original community, which contains some elements selected from it in some way, with the purpose of studying the original community. (Sarafi, 2009, pp. 186)

For the study, the sample included 34 preparatory students at Ali Omran Bordj El Kifan School in Algeria, including 19 males and 15 females.

3.5. Research areas:

time Field:

The researchers conducted the field study in three main phases between September 22, 2023 and December 16, 2024, as follows:

The study was conducted during the 2023/2024 season, the first and second surveys were conducted between September 22, 2023 and October 3, 2019, and the basic research was conducted between June 10, 2023 and December 16, 2023.

Space Field:

The researchers applied the study at Ali Amran 02 Primary School.

people's field:

The study included students from the preparatory school of Ali Omran Bordj El Kifan School in Algeria.

3.6. Data gathering tools:

dynamic balance test:

walking on the edge of the foot (on the instep) on a straight line (4.5 meters) long. (Jalili, 2016, p. 126)

The purpose of the test: to measure the child's balance while moving.

Tools used: drawing a straight line, a whistle, a flat hall.

Performance Specifications: The tester will walk on a straight line for a distance of 4.5 meters, so that he has the right to make two attempts.

Registration: count the number of correct steps performed and note the balance of the body during the performance. The highest point is five.

Fig.1. How to Perform the Edge footing Test in a Straight Line

3.7. practical procedures of the study:



Before starting to implement the field study on the ground, it is necessary to prepare and develop a tight plan to achieve the goals expected of it, which is to develop a proposed program using games aimed at developing the consensual abilities of preparatory school children, especially moving balance ability. For this purpose, the research student has developed 16 educational units. These

units contain a set of individual and group motor games aimed at developing and raising the target abilities in the study.

Educational units:

The proposed program consists of 16 educational units. This program was implemented by the research student at a rate of two classes per week. One class takes an hour to a quarter, the first 10 minutes to warm up, then 25 minutes for the main stage, then the last 10 minutes to return to calm down.

Detailed presentation of the program:

The guided games program consists of 16 classes, including a set of motor games aimed at moving balance. The proposed program consists of 16 educational units. This program was applied by the research student at a rate of two classes per week. The first class takes 45 minutes, 10 minutes for warming up, then 25 minutes for the main stage, then the last 10 minutes to return to calm down.

3.8. Scientific foundations of the instrument

3.8.1. the content validity:

Honesty is one of the most important conditions that must be met in study tools. Lindquist defines it as the accuracy with which the test is measured or what it was designed for. (Radwan, 2006, p. 17)

The researcher collected a significant set of tests that measure consensual abilities. Then we built the tests and presented them to a group of experts for the purpose of arbitration, revision and amendment.

3.8.2. Face Validity (Experts):

The validity of the proposed program, the tests and the note card were confirmed by presenting them to a group of 13 professors and experts for the

purpose of arbitration to express their opinion on them in order to ensure the suitability of the tests and the conditions for their performance to the characteristics and abilities of the study sample members. More than 75% of the arbitrators were agreed upon.

3.8.3. Self-validity:

Table 1. self- validity results of Applied tests

tests	Correlation coefficient	Self- validity
Dynamic balance	0.86	0.92

Subjective honesty (content) = square root of the coefficient of constancy (correlation r)

Through the results of **Table 1** shown for self-honesty using the square root of the fiability coefficient, where the self-honesty in the moving balance test reached (0,92), this confirms the honesty of the applied test.

3.8.4. reliability:

The stability of the test means that it gives the same results consistently if used more than once under similar conditions, and metrologists recommend the method of retesting in several cases, including the features of physical and motor abilities. (Radwan, 2006, p.104) the researcher used this method because it is in line with this study.

Table 2. Results of the arithmetic mean, standard deviation, and fiability and stability coefficients

Dynamic balance	pre-test	post-test
arithmetic mean	2,00	2,25
standard deviation	0,53	0,46

3.8.5. Stability coefficient of the test method and repeat the same test:

The researcher calculated the stability coefficient by the test method and repeated the same test and then calculated the Pearson correlation coefficient between the scores of the first and second tests. The results were as shown in the previous table:

We also note through the table the results of the Dynamic balance test, where the arithmetic mean of the pre-test was (02.00) with a deviation of (0.53) while the arithmetic mean of the post-test was (2.25) with a deviation of (0.46). We note through these results a convergence in the results of the pre-test and post-test, and this is confirmed by the correlation coefficient (0.86) at the statistical significance estimated at (0. 05) and the validity coefficient at (0.92), which is very close to (1), and this confirms the stability of the test for Dynamic balance.

3.9. Data Analysis:

The V.21 SPSS Statistical Packages Program in Human Sciences was used to process various data and results obtained through the application of research collection tools. The following statistical laws were used:

Descriptive Statistics: Arithmetic mean, standard deviation.

Inferential Statistics: T. Test for two correlated samples (the one sample), the Pearson correlation coefficient.

Stability factor by test-retest method, improvement rate, effect size Cohen D

4. Result and Discussion

4.1. Presentation and analysis of the pre- and post-test results of the moving balance test for males:

Table 3. Arithmetic means, standard deviations, and calculated t-value for the differences between the pre and post-test in terms of moving balance ability.

Statistical processing	Pretest	Posttest
sample members	19	19
Arithmetic mean	23.00	25.00
standard deviation	13.49	14.37
Difference between means	2.00	
Calculated T-test value	6.18	
Tabular T value	1.73	
Degree of freedom	18	
Significance level	0.00	
Cohen's effect size (d)	1,41	

From the results in Table No. (15), we note that the arithmetic mean value of the pre-test for moving balance ability in males was 23.000 with a standard deviation of 13.490. The arithmetic mean value of the post-test was 25.000 with a standard deviation of 14.379. By referring to the difference between the means, we find it equal to 2.000, which is a significant difference in favor of the post-test. This was justified by the calculated T value of 6.188, which is greater than the tabular T equal to 1.734. This was confirmed by the results of the Cohen effect, which amounted to 1.41. This shows the strong impact of the program applied to the sample. All these results prove There are differences Statistically significant between the pre-and post-tests among males in terms of moving balance ability.

4.2. Presentation and analysis of the results of the pre- and post-mobile balance test in females:

Table 4. Arithmetic averages, standard deviations, and the value of T calculated in terms of differences between the pre-and post-test in relation to the ability of moving balance.

Statistical processing	Pretest	Posttest
sample members	15	15
Arithmetic mean	14.066	53.066
standard deviation	5.861	13.101
Difference between means		39
Calculated T-test value		11.739
Tabular T value		1.671
Degree of freedom		14
Significance level		0.000
Cohen's effect size (d)		3.03

From the results in Table No. (5), we note that the value of the arithmetic mean for the pre-test of the moving equilibrium ability for females was equal to 14,066 with a standard deviation of 5,861, while the value of the arithmetic mean for the post-test was 53,066 with a standard deviation of 16,101, and by referring to the value of the difference between the averages, we find it equal to 39,000, which is A significant difference in favor of the post-test .This was justified by the calculated value of T, which amounted to 11,739, which is greater than the tabular value, which equals 1,761, and this was confirmed by the results of the Cohen effect size, which amounted to 3.03. This shows the strong effect of the program applied to the sample, and all of these results prove that there are significant differences. Statistically significant between the pre-and post-tests in males with regard to the ability of moving equilibrium.

Through the results obtained in the male and female tables, the researcher invades the difference between the results of the pre-test and the post-test regarding the ability of moving balance to the directed games program applied to children, and the age factor of the sample children was also a reason for the development of the ability of moving balance.

Imam Al-Ghazali stressed the importance of the early childhood stage and the necessity of taking care of children at this age because physical development is rapid at this stage, and he did not neglect the role of play in physical and motor development, cognitive and mental development, as well as developing their intelligence and creativity abilities, and he recommended Entertaining the child through play, linking his play to his learning and physical, motor, cognitive, mental and psychological development.

These results agreed with many studies, including the study (Dheifallah et al., 2024, p. 349), which confirmed the importance of guided play Elementary among -school children and its role in improving the child's coordination abilities, including moving balance, and also confirmed the study (Nagham, 2010) on the necessity of relying on motor games programs to develop children's coordination abilities, including mobile balance, as this study proposed a motor program to develop the abilities of fixed and mobile balance, and (Karkoush, 2017) also mentioned in its study that through the motor games program the child becomes able to control His body balance, and he mentioned (Laghrou, 2019) In his study, developing the ability of mobile balance enables the child to learn new motor skills and makes it easier for him to implement them and adapt to them quickly .Educational means also play an important role in the child's development in all sensory-motor or cognitive aspects, as well as psychosocial aspects, by relying on special, directed and purposeful movement programs or through traditional methods such as indoctrination and others, and through

modern methods, as I mentioned (Khedair, 2018) in its study that early childhood is one of the most important stages of a person's life due to its flexibility and ability to learn various psychological, sensory, and motor skills, including moving balance.

4.3. Percentage of improvement between pre- and post-tests for males and females:

The researcher used the % improvement rate equation, using the equation prepared for this purpose to determine the rate of progress or development occurring in the study variables (Al-Akkad, 2000, p. 112).

Table 5. Percentage of improvement in the post and pre measurement of the mobile balance test

tests	gender	Pre-test	Post-test	Percentage of improvement
Moving balance	males	23.00	25.00	%08
	females	14,06	53,06	% 73,49

As shown in table (20), there were significant improvement rates in the moving balance test in question for males and females. The improvement rate in males was 08%. As for females, the development rate was 73.49%.

5. Conclusion

This brief study has come to an end. It may be useful to explain that it has achieved its most important goal, which is to explore the role of play of all kinds in children's learning and development in different aspects, as well as proposing

a program to use games aimed at developing consensual abilities, especially the ability of fixed and moving balance and the ability of motor rhythm among children in preparatory departments (5/6) years, as well as recommending improving the practical aspect of educational curricula in primary schools and kindergartens through the percentage of time specified for play activities and providing the requirements for this, ensuring the desired growth of children in different forms and acquisition The skills that are indicated in the study raise the level of optimism that today's children will be effective builders in the future of their nation.

Through this modest study, we wanted to remove dust on some misconceptions about play, which considered it a waste of time, useless and useless, had no expected goal or goal, as well as having a negative impact on children's academic achievement. However, through this research, it was found to the contrary and that these ideas are unfounded.

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